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THE JOURNAL OF THE ASSOCIATION OF CINE-TECHNICIANS

THE CINE-TECHNICIAN

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NO. 15 1938 MAY JUNE

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THE DUPLICATE NEGATIVE

SNOW SHOOTING IN COLOUR

RECOLLECTIONS OF A PIONEER CAMERAMAN

TEN YEARS — OF WHAT?

The New Films Act Analysed

fine grain

KODAK'S new *fine grain* duplicating film stocks are already being extensively used with remarkable success; it is found that a print made from the *Fine Grain* Duplicating Negative is practically indistinguishable from one made from the original negative . . . full particulars from Motion Picture Film Sales (Dept. 21), Kodak Limited, Kingsway, London, W.C.2.

KODAK **fine grain** DUPLICATING POSITIVE

KODAK **fine grain** DUPLICATING NEGATIVE

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SHOOTING IN SPAIN

By SIDNEY COLE.

THE Italian bombers came at 10.30 p.m. That was March 16th. Their raids continued through the night at half-hour intervals until 1.30 a.m., and after that at 7.35 a.m. and 10.15 a.m. Lawson, Montagu, and I arrived back in Barcelona at 5 o'clock that afternoon in time for the further raids at 10.30 p.m., 1.15 a.m., 4.30 a.m., 7 a.m. and 10 a.m., with two in the afternoon of the 18th (1.15 and 2.50) to finish off. To the envy of my colleagues I managed to sleep through two of the raids during the night. In these raids 1,400 people were killed and about 3,000 more injured. The Calle de Cortes, one of the big streets of Barcelona, was the scene of the most damage. Two hundred yards from the University, on either side of a street about twice as broad as Regent Street, seven solidly built eight-story houses had been completely shattered. Two or three of them had vanished completely and it was possible to see through into the next street.

Shots of this destruction figure in the two films—"SPANISH A.B.C." and "BEHIND THE SPANISH LINES"—which the units I was with went to Spain to make. The units comprised Ivor Montagu, producer; Thorold Dickinson and myself, directors; Arthur Graham and Alan Lawson, cameramen; Ray Pitt and Phillip Leacock, cutters. But our main object was not to stress such horrors as these, but rather the every-day life of a country fighting a war on its own soil, an angle that gets rather overlooked when people have become accustomed to journalistic exaggeration. When I got back I saw the English papers of that period, with such headlines as "Barcelona In Flames". That was wildly far from the truth. Unless you happen to wander down the particular streets that have been hit the town presents a quite normal appearance.

Another press comment that surprised me on my return was the article in the March issue of "World Film News" by Richard Butler, Pathé cameraman. Mr. Butler was only in Spain for nine days, whereas our stay was for ten weeks, and the picture he paints is very different from the one that we knew. All cars, he says, have painted on them the initials of the organisation to which the owner belongs and, of course, a sickle and hammer painted on somewhere". I never saw a single car with the initials of any political organisation printed on it, and the absence of the sickle and hammer would probably have disappointed *The Daily Mail*. The only initials I did see were U.G.T. and C.N.T. on the tramcars, buses and trains, to signify that the two Trade Union organisations, formerly deadly rivals, have composed their differences. In complete amity and very efficiently they conduct the transport services of Barcelona.

I heard nothing of the loud-speakers Butler mentions as broadcasting propaganda and political songs until 1 a.m. in the morning. He must have been very unfortunate too, in the roads his chauffeur chose to take in his attempt to get to Madrid. Spanish roads are few in number but the main roads, although a little narrow for great volumes of traffic, are in good repair and quite well surfaced. But Butler's strangest anecdote is about the sentry who demanded his papers and then "mumbled something in Russian." I gather from the rest of the article that Butler possesses small French and less Spanish. He probably was not in Spain long enough to realise that Spain has quite a number of dialects and that what he rather hastily assumed was Russian was probably Catalan, the language of Catalonia, or even that almost entirely incomprehensible language, Basque. Anyhow, if it was Russian, Butler scores over us, because we did not see or hear one in the whole of our ten weeks.

I was sorry to read that he got himself arrested (although newsreel cameramen are surely not entirely surprised when that sort of thing happens to them in a war zone). Had he been able to produce an A.C.T. card he would have found that membership of one's Trade Union carried weight in Republican Spain. We ourselves obtained all the facilities we wanted from the Foreign Press Department, who, although transport facilities were rather difficult at times, invariably gave us all the help they could. We became very used to being stopped on the roads by the controls stationed outside each town, and soon realised the paramount importance of possessing the proper credentials and authorisations.

The cafés are full, even if some of the liquor sold doesn't exactly live up to the name on the bottle. The cinemas are always well attended. They have not been receiving any new films but the old favourites, such as Eddie Cantor, Popeye, Mickey Mouse and the Marx Brothers are run again and again without any diminution of popularity. I visited a Music Hall, a sort of Barcelona

equivalent to the Holborn Empire, which was not quite so well attended, being very near the port and consequently rather more likely to get in the way of any bombs that dropped. The level of the performance was quite high, and included what I believe is a peculiarly Spanish type of comedian who undertakes to make a pun or wisecrack of some kind on any word that members of the audience care to shout out to him. Whilst we were in Barcelona the Opera Season started with a performance of "Samson and Delilah" with French stars in the leads. Dickinson and Graham went to this and found it a lengthy if enjoyable experience. There were two air-raids during the performance and with a certain lack of co-operation the Italians timed them not to coincide with the long intervals, but with the middle of each act. During these interruptions the audience sat quite happily talking or listening to the orchestra giving a spirited rendering of the Catalan national anthem. Dickinson and Graham eventually arrived back at the hotel (much to our relief) at 3 a.m.

Nothing seems to have disturbed the habit of the Spanish women of enjoying the sun while they do their knitting and sewing. Wherever I went, before or after air-raids or in the villages quite near the front line, I saw little circles of women sitting on the pavement with their backs turned to the world interested only in their needlework and the local gossip. The same is true about Madrid, although the dislocation inevitably produced by the war is a little more apparent in that all entertainment stops in Madrid at 8 p.m., so that if you want to see a film or play you have to go somewhere between 5 or 6 p.m. But the Puerta del Sol, the main square of Madrid, at most times of the day looks rather like Piccadilly Circus, with plenty of people walking along the pavements and hawkers busily trying to sell silk handkerchiefs and trinkets to them. The shops, too, are open, making the best of what they have. Montagu saw a shop one morning—the proprietor had just opened up for the day and stood at the door beaming in the sun. His window was neatly filled with nice clean white boxes, and in the centre of the window was a sign which said in Spanish: "We have no articles of any kind for sale."

Take a car from the Puerta del Sol. In five minutes you are passing through the stone barricades which were erected at the end of the streets in November, 1936. Close to is the Casa del Campo, the Hyde Park of Madrid. Imagine that it is Hyde Park and that you enter by the gate at Hyde Park Corner and that beyond the Park the town comes to an end. You drive to the centre of the Park and then get out and walk up a roofed communication trench to the front line. Looking through the slit of an observation post you see, 300 yards away, the Fascist trenches. To the north (imagine to yourself the houses along the Bayswater Road) lies University City. Through those houses continues the front line.

We visited the front line to take shots for "SPANISH A.B.C.," because perhaps the most remarkable thing is the attention being paid to education. Spain had the highest illiteracy rate in Europe, namely 52%, and the Government faced a tremendous task in trying to get rid of this state of affairs. Then the war started and by the middle of last year most of the men they had to teach were fighting in the army. They consequently formed a special department of the Ministry of Education, called the Militias of Culture, whose job it was to give classes to the soldiers. This they did, right up to and including the front line. In the Casa de Campo we visited a school where some two dozen soldiers were being taught their A.B.C. This, like the observation post, was 300 yards from the enemy trenches, and needless to say, there were no windows on the outside wall. In the nine months since the Militias of Culture started it has taught their letters to about 10,000 soldiers each month.

Madrid is no longer bombed from the air. Apparently it had proved too expensive because of the efficacy of anti-aircraft guns and fighter planes. But one lunch time we heard a factory syren, which is the usual method of air-raid warning, and dashing out into the street, we looked up and saw eight or nine black shapes in perfect formation. Everybody in the street was looking up at them. Suddenly, as we watched, the formation wavered, and with a roar of laughter the Madrid crowd realised that it was a flock of wild geese, followed immediately by an enormous mass formation of about 100 more.

We had naturally to work rather quickly because it could very rarely be the case that we would have an opportunity to revisit any location. At the same time, of course, we equally could not know exactly what material would be found at any location. Consequently after a rapid preliminary survey we had to make up our minds very quickly. It was doubtless very good training to have to justify every shot, but cypress trees and mountains kept tempting us with their possibilities.

We had with us two Newman Sinclair cameras and two Eyemos. We at times found it necessary, in shooting interiors, to use lighting which we supplied by means of photo-floods purchased in Barcelona, and run off the local power. In photographing some coalmines at a village called Meqinenza, where there was no electric supply, we had to use the miners' carbide lamps as a source of illumination and to move the miners holding them around as if they were spots on the studio floor. (The miners, by the way, gave us a grand time. The village has since been captured and most of them, I suppose, have fled or been shot). On another occasion, in the trenches in Madrid, we very successfully used the reflectors from our lamps as sun reflectors to project light from outside the door on to the faces of the men we were photographing.

All our processing was done in Spanish laboratories, the bulk of it in Barcelona but some of it in Madrid. Owing to the shortage of stock we had to take with us our own positive stock for this purpose. In Madrid the laboratory showed us with great pride a newsreel, the picture of which had been shot on sound stock, which, apart from a slight softness, was of very good quality.

A fascinating and instructive experience.

SNOW SHOOTING IN COLOUR

(Continued from page 3)

amateur skating, taken on the Palace Hotel Ice Rink. Other noted personalities were secured at the exclusive Corriglia Club. During one week-end, the filming party went on an expedition into the famous Diavolezza Glacier in the region of the celebrated Pitz Palu. It took 4½ hours to climb, but it was worth it!

Personally, I found this St. Moritz commission very enjoyable and, at times, distinctly entertaining. The experience with colour in such an exceptional location as this is something which will have endless value

SNOW SHOOTING IN COLOUR

by KAY KETTLEWELL.

Diavolezzo Glacier, with Kay Kettlewell in foreground.

THIS year has seen the increased popularity of Switzerland as a location for exteriors—the ideally clear atmosphere and impressive settings giving a high-merit quality to photographic production of all kinds.

During the "season" the outlook is, of course, full of animation and this, coupled with the gay clothing of the ski-ing, skating, and bob-sleighing enthusiasts, makes such locations as St. Moritz especially attractive for colour filming—definitely a revelation to those who have imagined that the great contrast between the bright blue sky and the white glare of the snow might produce unsatisfactory conditions. Any such possibility is offset by the quality of reflected light there, which throws up soft tints of blue-green and rose-pink into the shadows of the snow. Beautiful effects are obtainable in the glaciers, from the glassy green and rose-pink shadows in the undercuts of ice. In the distance the shadows on the sides of glaciers are mauve. I turned four thousand feet in all,* and the quality has turned out to be very good. The film, being in colour, really has something new. Particularly noticeable is the surprising *range* of colours, especially in the long shots.

To give some indication of light values with regard to colour, it is possible at times to stop down to f.8 and f.9 for exposures when shooting long and medium shots; and to f.5.6 and f.6.3 on close-ups.

I had no trouble with the running of the cameras with regard to oil; the only danger was of grease or dirt freezing on the lenses. No special lubrication was used.

The question has been asked whether filters are used with this system (Dufay-Chromex). On this particular trip no filters were used for normal shots; but some experiments were made with a blue filter supplied by Dufay-Chromex for shooting night effects by sunlight. These shots have proved quite successful. The only other aid to the photographic side of the camera-work was the use of soft silver and soft gold reflectors, which were very useful when shooting close-ups by the setting sun.

* Mr. Kettlewell was cameraman to the DROCO MONTAGU Film Unit —St. Moritz location.

It is possible to obtain some unique effects by tracking on skis, having the camera on a sling supported round the shoulders. The result is quite steady, provided, of course, that the operator can control a pair of skis. It is really dangerous to attempt this stunt if not. That a nasty accident could occur here will be realised when one remembers that it is easy to reach a ski speed of 30–40 miles per hour without any effort.

Another method of tracking is on skates, but this again requires the necessary skill on the part of the operator. Perhaps the safest way is to fix the camera on the front of a bob-sleigh. Then the operator can sit behind his camera quite safely; and the sleigh is simply pushed from the rear. The only disadvantage is that it must be on quite smooth snow or ice, as the bob-sleigh cannot travel over gullies and depressions in the snow without bumping. On skis, this difficulty does not exist. The difficulty of keeping on one's feet, when photographing skating sequences on the ice, is overcome by wearing sheep-skin overboots with thick crêpe rubber soles. With these it is possible to walk practically anywhere without slipping, and even to run if necessary.

A snag which had to be overcome was the sinking of the tripod legs in deep snow. No matter to what length the legs were extended, the snow was always deeper, making it impossible to get a level camera. This difficulty was solved by the use of a triangle fitted with spikes at each corner. This remained on the surface of the snow and carried the weight of the camera quite effectively. When photographing on the glaciers with sheet ice under the feet, it was a simple matter to stamp on the corners of the triangle—which made the spikes pierce the surface of the ice and thus hold the triangle with camera perfectly firmly.

On this St. Moritz job the unit shot scenes of the Kilomètre Lance, the fastest ski race in the world (90 m.p.h.), while other sequences included the Cresta Run and Bobsleigh Run, and the Ski Jump (showing actual jumps of 70 mètres). Other shots included Megan Taylor, the recent World Championship winner for

(*Continued on page 2*)

THE DUPLICATE NEGATIVE

I. D. WRATTEN (Technical Service Kodak Ltd.)

Based on a lecture given to A.C.T. members on March 17th, 1938

THERE seems to be no doubt that the making of duplicate negatives is a process on which there are many and varied opinions as to the most suitable procedure. Theoretically, at least, the print from the duplicate negative should compare favourably with a print from the original negative, but in actual practice this state of affairs is rarely obtained, and it is usually fairly easy for the observer to determine whether a projected print has or has not been obtained from a duplicate negative. Prints from the duplicate negatives frequently show a loss in the reproduction of tonal values coupled with an increase in graininess, and it is on these two defects that we might well start our discussion on duplication procedure.

In order to obtain correct tone reproduction it is necessary that the exposure for both the master positive and the duplicate negative should produce minimum densities within the straight line portion of the characteristic curves of the two materials, and that the overall gamma, i.e. the product of the positive and negative gamma values, should be equal to unity.

The avoidance of graininess is the second difficulty, and while a small increase in graininess appears to be inevitable, it can be kept within satisfactory limits by developing the two duplicating materials in accordance with their graininess charactertistics, i.e., to develop the duplicating positive film to a relatively high gamma value and to develop the duplicating negative film to a correspondingly low gamma value. This is a fairly simple matter to accomplish, but great care should be taken not to develop the master positive to too high a gamma value, because at high gamma values the latitude of the duplicating positive is diminished and if the original negative tends to be contrasty there will be a serious loss in tone reproduction.

In **Fig 1** is shown a series of characteristic curves of duplicating positive film developed in D.16 developer, and if, therefore, we select a gamma value of 1.90 as being satisfactory, we must ensure that the minimum density on our master positive print shall be on the straight line portion of the curve if the highlights of the original negative are to be satisfactorily rendered, and it will be seen that in this case the density should be about 0.5. In **Fig. 2** will be seen a series of characteristic curves of duplicating negative film, and here a gamma value of between 0.5 and 0.65 will be satisfactory and the minimum density on the negative should be between 0.35 and 0.4.

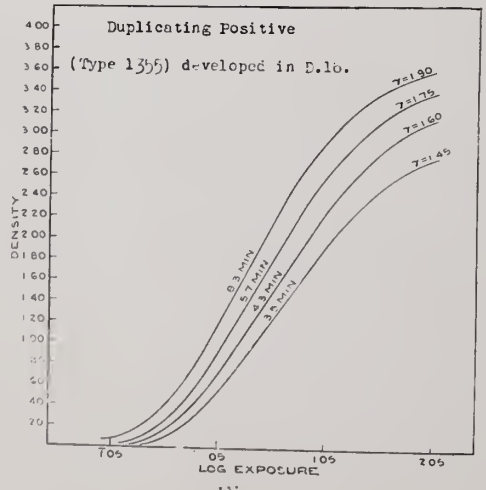

Fig. 1

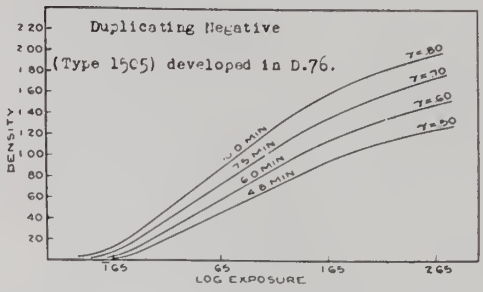

Fig. 2

The master positive will, therefore, differ in appearance from an ordinary release print by reason of its increased density, and the duplicate negative will appear only slightly heavier than the original negative.

There is little doubt but that this method is the most suitable for obtaining a really satisfactory duplicate negative with the normal duplicating films, and the only other point worthy of emphasis is that exceptional care should be taken in grading (or timing) when making the master positive. Test strips should be made and the minimum densities on these strips measured if uniformly good results are to be obtained from scene to scene on each reel of film.

It is assumed that it is unnecessary to point out the necessity for carefully cleaning the original negative before making the master positive, for ensuring close and uniform contact of the films at the printing aperture, and for using the most careful developing technique, because these are all basic requirements in the duplication process and it must be obvious that when the exhibition print is made from a duplicate negative three developing operations have intervened, and all defects are cumulative.

While the normal duplicating films are capable of reproducing faithfully the tonal values of the original, the duplicating process is usually accompanied by an increase in graininess. Quite recently, however, the Kodak organisation introduced on to the American and English markets two entirely new products designed for making satisfactory duplicates free from graininess. These two films are named Eastman Fine Grain Duplicating Positive and Eastman Fine Grain Duplicating Negative, and since their use entails certain departures from normal duplicating practice it will be worth while discussing these two new products fairly completely.

The new fine grain Duplicating Positive film consists of a yellow dyed positive type emulsion coated on a clear support, the photographic speed being considerably less than that of the normal positive product. The most satisfactory development characteristics are obtained when this film is developed in a D.76 type of developer, within a gamma range of 1.00 and 1.5. **Fig. 3** shows a

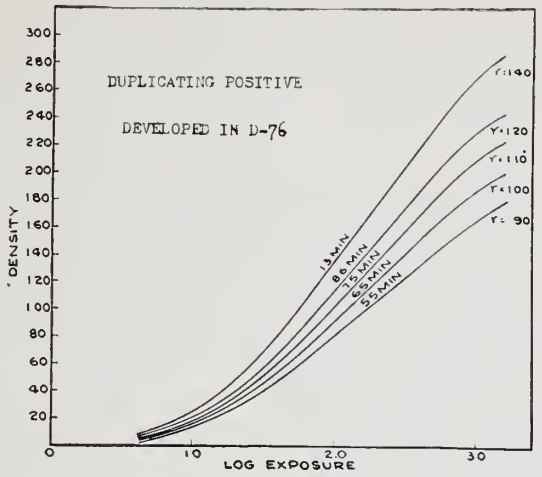

Fig. 3

series of Fine Grain Duplicating Positive curves obtained in a D.76 developer. An important point is that there is practically no fog under normal conditions of use. When the Eastman Type 2B. Sensitometer is used, satisfactory exposures can be made if the filter is removed and multiple exposures of two, or even three times given. The new film is similar to ordinary positive film with regard to its colour sensitivity and it can, therefore, be used under similar safelight conditions in the darkrooms.

The new Duplicating Negative film differs completely from the normal types of duplicating negative product in that it is a low contrast panchromatic emulsion of low speed. **Fig 4** shows a series of curves developed in D.76, and it should be stated at this point that a development time sufficient to obtain gamma values of between 0.60 and 0.70 is recommended. Although this new emulsion is slower in speed than a normal duplicating negative film the difference in speed is not excessive, and a single exposure at the positive setting of the Type 2B. Sensitometer is sufficient.

The spectogram in **Fig. 5** shows the spectral sensitivity of the new film. This extended colour sensitivity gives additional speed to the film, but requires that it be handled under negative safelight conditions.

Both these new films have a very fine grain structure, but the photographic image differs from the normal image in appearance, being brown in colour and somewhat transparent. Since the image is brown in colour, however, the effective density in printing is greater than would appear visually and so is the printing contrast. This point must be kept in mind because in making tests on these two materials when using them for the first time some laboratories experienced failure owing to excessive contrast, due in all probability to the fact that the Fine Grain Duplicating Positive material was developed to too high a gamma value. When making tests on these two new materials, therefore, the safest method of ascertaining whether or not the correct conditions of master positive and duplicate negative have been obtained is to actually compare prints made from the original negative with those made from the Fine Grain duplicate negative, although if the following recommendations are adhered to, little or no trouble should be experienced.

From general experience it is possible to state that the new Fine Grain Duplicating Positive should be developed in a D.76 type developer to a gamma value of between 1 00 and 1.5 and that the minimum density on the print should be about 0.70 so as to keep on the straight line portion of the curve and thereby ensure successful tone reproduction. In view of the low speed of this duplicating positive material it is beneficial to develop to the maximum permissable gamma value (1.50). The Fine Grain Duplicating Negative material should be developed to a gamma value of between 0.60 and 0.70, and the minimum density on the resultant negative should be somewhere between 0.40 and 0.45.

Since the photographic characteristics of these two new duplicating films differ from those of the normal product, it will be found that certain modifications to existing equipment are in most cases advisable if the two materials are to be handled satisfactorily. In the first instance the fact that the two new products, particularly the Fine Grain Duplicating Positive, are slower

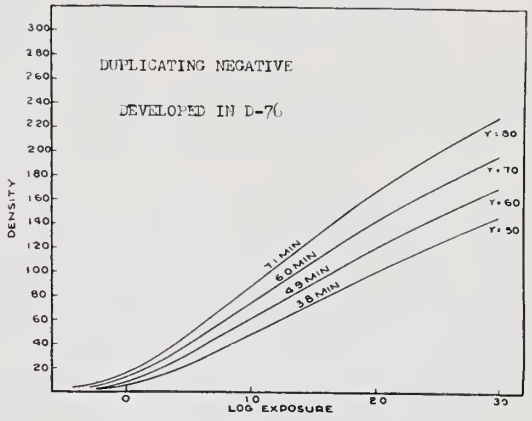

Fig. 4

than the normal films has already been emphasised, and this in itself requires a modification to the printer, whether continuous or intermittent. This modification should be to increase the exposure, either by a reduction in the speed of printing, or by using a light source of higher intensity, or both. The usual type of intermittent printer is fairly easily modified in these two respects, and most continuous printers can also be modified, although a continuous printer is sometimes difficult to control at a steady speed without flutter at, say, fifteen feet per minute. The normal 100-watt lamp should be replaced with one of 250 or even 500 watts, and this usually entails suitable modifications to the lamphouse to ensure satisfactory ventilation. If a resistance type light change is used on the particular printer set aside for this work the resistances themselves will need modification, and although moderate changes in lamp current do

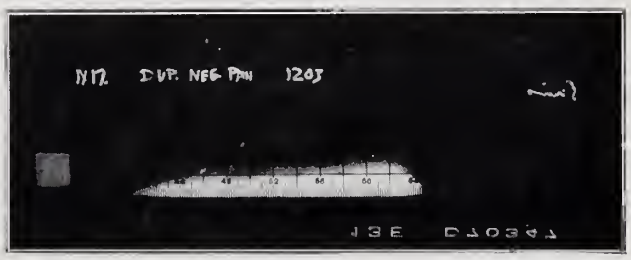

Fig. 5

(Continued on page 6)

Scenario Competition for a Film on the League of Nations

In accordance with a decision of the Assembly of the League of Nations at its 18th session, the Secretariat of the League has opened a competition, with prizes, for scenarios for documentary films on the League of Nations.

(a) For a general film describing the fundamental purposes of the Covenant and the principal activities of the League;

(b) For a film dealing with some special branch or aspect of League work (e.g., the settlement of some political dispute; some aspect of the work of the Health Organisation—such as malaria, epidemics, standardisation of sera; or Communications and Transit—such as the unification of road signals, buoying and lighting of coasts, pollution of the sea by oil; or the organisation of the control over the legitimate trade in opium and dangerous drugs, etc.)

The films should be sound films, with English and French versions. The maximum length of the general film should be 6,000 feet, and that of the special film about 1,500 feet.

Scenarios should be complete with detailed technical indications both as regards photography and sound. Scenarios should be written in French or English; manuscripts submitted in other languages will be considered only in as much as it will be possible for the Secretariat to obtain French or English translations without delaying unduly the work of the jury.

Scenarios should be addressed to, and should reach the Secretary-General of the League of Nations, Geneva, not later than August 1st, 1938. The name of the sender should be enclosed with the scenario in a sealed envelope; it should not appear on the scenario, which should bear a motto. The scenarios will be judged by a competent international jury.

The competition will not be limited to scenario writers who have professional experience, but competitors may indicate the nature of any previous experience they may have had in the writing of scenarios. The copyright of all draft scenarios submitted for competition which receive a prize will be vested in the League.

Prizes will be awarded as follows:

(a) For the general film, up to a total amount of 2,000 Swiss francs, the First Prize being not less than 1,000 Swiss francs;

(b) For the special film, up to the amount of 700 Swiss francs, the First Prize being not less than 400 Swiss francs.

In the event of its being decided to produce a film from a successful scenario, the Secretariat may invite the author to assist in its production, in which case an additional payment, of an amount to be agreed upon with the author, may be made. It is understood that the Secretariat has the right, in the case of any film for which an award has been made, to make such changes in the scenario as may be necessary for its production as a film.

All requests for further information in connection with this competition should be addressed to the Director, Information Section, Secretariat of the League of Nations, Geneva.

THE DUPLICATE NEGATIVE

(*Continued from page 5*)

not seriously affect photographic contrast when the two new duplicating films are used, a matte or diaphragm type of light change is preferable. If the latter two types of light change are used, consideration should be given to the possibility of using the new high pressure mercury vapour lamps, since in addition to certain other advantages, these new lamps would not require many changes in the lamphouse to increase ventilation.

It has been stated that the new Fine Grain duplicating materials should be developed in a D.76 developer, and in this connection the bath normally used for the development of picture negative is satisfactory. Most laboratories usually work with a D.76 type of developer, slightly weaker than the original D.76 formula. It will be noted that the yellow dye in the duplicating positive is discharged rapidly during development, giving a slight coloration to the developer, but this has no effect on the properties of the developer and can safely be ignored.

Complete fixation in the normal picture negative fixing-hardening bath is attained comparatively rapidly, and no unusual precautions are necessary at this stage, except to make sure that the two new films are not over hardened by prolonged immersion in the bath. Under conditions of machine development, using the normal fixing-hardening baths used in this country, fixation is completed in from two to three minutes. No special modifications are required in the subsequent washing, but the Fine Grain films dry rather more rapidly than positive film, and consequently the drying rate in the cabinets should be reduced in the most convenient manner, such as by reducing the (dry bulb) temperature or decreasing the air velocity through the cabinets.

Little more need be said on the subject of these new Fine Grain Duplicating Films, other than to point out that the smooth, rather glossy emulsion surfaces of the new films are slightly more susceptible to abrasions than are the normal duplicating films, and that in consequence more than usual care should be taken in handling them.

RECOLLECTIONS OF A PIONEER CAMERAMAN

(*Continued from page 7*)

and so on were made with their help.

I once spent hours getting a sequence of shots in which the main player was a prehistoric animal of the Dinosaurus type. He had to do a lot of chasing about over rocks after a little band of white hunters and was eventually killed by them. In the actual scenes he was shown hot on their heels the whole time; for realism both the Dinosaurus and his hunters appeared on the scene at the same time. Actually the sequence entailed an enormous amount of work in making exact plaster replicas of real rocky scenes I had already shot. However, the most difficult part of the whole business was the making up of a small lizard to play the part of the Dinosaurus. Apart from the patience needed in constantly re-fixing a tiny saw-edged strip of cardboard spikes that ran from his head to the tip of his tail, he was about the most temperamental performer I have ever come across. The direction in which I wanted him to go and that which he took were always "as the poles apart."

These are but a few of the snags that were overcome by the little band of pioneers in the early days.

Recollections of a Pioneer Cameraman

By F. HAROLD BASTICK.

WHEN I first went into the picture business nearly thirty years ago, trick photography was more of a necessity than a stunt. It was just as important to pack our thousand foot "features" with spectacles and dramatic effects as is the case with the more ambitious productions of modern studios. The great difference however, was that in place of unlimited resources in technical apparatus, capital and facilities, we had to rely entirely on imagination and ingenuity—in other words "Fake."

No matter how ambitious the script or what extravagant situations it called for, ways and means were always devised to "put it on the screen."

I was lucky enough to start my career as a cameraman with W. R. Booth, a pioneer producer and genius at trick photography. He was originally with Maskelyne and Cook at the Egyptian Hall, so was literally steeped in the art of illusion. In his outdoor (garden) studio at Isleworth, many trick effects were born which can be seen with surprising frequency in the picture theatres to-day. The very settings used were fakes. In the case of an interior, the entire room would be painted in black and white on a backcloth, the big Moy camera focussed on it, and real furniture set in positions to tally with the perspective of the backcloth. Realism was added by cutting a slit in the canvas and pushing a real table halfway into the hole to match up with the painted half-table on the cloth!

The then popular 500ft. "trick-comedies" produced many weird and wonderful effects and provided us with plenty of practice in achieving the (apparently) impossible. In one, a man suffering from a hangover was sitting on his bed with a splitting headache. The camera moved to close-up and the man's head actually split in two, the gap widening until the half-heads were at either side of the screen. Out floated bottles of champagne, lobsters, etc., the hangover was cured and the half-heads reunited, registering a beatific expression of relief. Many equally fantastic effects were achieved by using a combination of one-turn-one-picture and reverse turning but as the cameras of those days were not fitted with reverse gears, they had to be turned upside down on the tripods and turned in the ordinary way!

While still with Booth, I was shown a completed film of Anstey's "Brass Bottle." The backer did not like the sudden appearances of the Genii (obviously obtained by the old "stop" method) and asked me if I could make them into something more gradual and artistic. I did so by having the two frames on either side of the "stop" enlarged to whole-plate stills. One, of course, showed the bottle lying in the foreground of the set and the other the Genii standing beside it. The first still was pinned to a board and covered with a sheet of clear glass, the camera focussed on this giving the *exact* shot as originally taken. "Vapour," apparently coming from the mouth of the bottle, was then painted on the glass and taken, one-turn-one-picture, until it took the rough shape of the Genii. The second still was then substituted under the painted glass and the "vapour" gradually washed off, revealing the Genii in position. This length of film inserted in the already completed picture gave the desired gradual appearance and brought me some measure of fame as a "fake expert."

Progress in trick photography was rapid and big strides were made in the gentle art of double exposure. It was soon possible to film one artiste playing twin parts in a really convincing manner and I believe I can claim to be the first cameraman to make a player shake hands with herself.

This was in a "London Film" at the old St. Margaret's Studio, which was produced by Maurice Elvey. Elisabeth Risden was the star. The effect was obtained by using two model hands made by the property department. Fitting together in a perfect handclasp, they were covered with black gloves and attached to the high back of a chair placed exactly on the centre mask line. The one on the side to be shot first was then taken away and "Rizzy," wearing white gloves, simply had to grasp the one that remained. While winding back for the second exposure the dummy hand was replaced, its opposite number removed and the other half of the double exposure taken.

The picture-going public had now become more critical and soon recognised a double exposure as such. Hence another incident in which the same star featured. It was an ordinary twin-part double exposure. In one scene she stood talking to her counterpart across a table through the centre of which ran the mask line. To confound the critics, however, and prove this double exposure was *not* a double exposure, we provided a novel twist. As one figure moved towards the door to exit at the end of the scene, the other followed right across the picture and looked out after "herself." All that was done was to snatch the mask out of the camera during the second take, at the moment the artiste reached it and so leave the whole set clear.

Models always played a large part in faking difficult or unusual scenes and most of the early train smashes

(*Continued on page 6*)

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The Art Director in Motion Pictures

by

LAWRENCE P. WILLIAMS, A.R.I.B.A., A.A.Dip.

The following article is based on a paper read, by arrangement with A.C.T., at the Annual Exhibition of the Royal Photographic Society.

THE connection between the photographer and the art director must be very close if the final results on the screen are to bear even the most casual scrutiny. For my part I have been very fortunate during my ten years in the industry in being almost continuously connected with the same camerman, one whose help and co-operation I have always enjoyed. And I should like to pay a tribute to Fred Young, whose work with the camera has undoubtedly helped to enhance the reputation of British films over a period of years.

The duties of an art director and the nature of his work vary—not only with different personalities and different circumstances, but with the different countries in which he may be employed. My personal experiences and contacts with art directors extend only to the countries of Western Europe and America, though there are large and often flourishing motion picture industries in Russia, China and Japan; the latter has, I believe, one of the largest outputs in the world, though their pictures are seldom seen in Europe and then only under the auspices of societies interested in the intellectual advancement of film production and not as commercial propositions.

Film production on the continent of Europe, though important as a national industry in some countries, has not risen so high in importance or organisation as it has in America, where it is, I believe, the fourth largest industry, and where great companies of usually sound financial backing are continually employed in the production of pictures for the largest home market in the world. In other countries, France, Germany, Japan and Russia excepted, there is a subsidiary market showing a larger percentage of American pictures than of their home product. There are now a few companies in England modelled from the production point of view on those of America, though their much smaller market both at home and abroad necessitates the plants being smaller than most of those in America, whatever you may recently have heard to the contrary.

It is, however, the hope of all those who earn their living in the industry here that the new Quota laws will encourage production activity and the capital that will make this possible. I hope that the presence here of two American companies, M.G.M. and 20th Century Fox, is evidence of such activity and that any difficulties they may have met with in their first pictures will not discourage them from further production. From the point of view of those of us who have been privileged to work with our American colleagues on these productions, we are grateful for all they have been able to teach us.

Most of the countries on the continent of Europe boast a film industry, and, before the present political régime, that of Germany was highly organised and very well equipped, due no doubt to the large number of German and part German-speaking countries on the continent. During the more or less casual visits I have paid to continental studios I have always gained the impression that their art departments are less highly organised than those of England or America, a more bohemian spirit pervading them than the "architect's office atmosphere" which distinguishes those of the English-speaking countries. The contrast in the mentality of the continental art director seems to be extraordinary; on the one hand he will produce working drawings for presentation to the construction departments on the backs of soiled envelopes, and on the other he has a definite flair for correctness of historical atmosphere and detail far in advance of England and America.

A free and easy way of carrying on, though sometimes conducive to a product of pictorially artistic merit if in the right hands, is often responsible for an adverse balance sheet. This balance sheet is, however, of the greatest interest to American art directors and of growing interest to us in England, and I must say rightly so, for one must remember that the film industry is first and foremost a commercial concern endeavouring to pay dividends to its shareholders, and secondly an art. To illustrate the importance attached to the commercial angle in American studios, whilst on a visit to Hollywood some two years ago I mentioned to Hans Dreier, the chief art director to Paramount, a certain picture of theirs I had seen and greatly admired just before leaving England. All discussion on this subject was immediately dismissed with "We will not discuss that picture—we went 7,000 dollars over estimate in this department." I think that many of you will agree with me when I say that some of the best set American pictures are from the Paramount organisation, and any of you who picture the man responsible with a beard and highly coloured shirt will be surprised to hear that he started life in the cavalry of the Prussian Guard.

Reputable producing companies would nowadays never consider the preparation of a film without consulting the art director assigned to the picture at least some weeks before actual turning began. This however has not always been the case. Not so many years ago the director would write two stories overnight and produce one before and one after lunch. Many of these would be Westerns or outdoor subjects requiring only one interior set such as a log cabin which could be used in both pictures. This set would have to be erected on a turntable in the open air so that it might follow the sun in his journey across the sky. No artificial lighting had been used for the cinema at that time. (Perhaps the weather was better in those days). As the log cabin was painted on canvas, a windy day did not help the realism of the setting. Even during a later stage in the development of the industry when large greenhouses were being used as studios, with artificial light to help bolster up our too uncertain sun, the sets were still designed by scene painters and executed on canvas with door handles painted on the doors and a humble nail conveniently driven in the middle by which it was dragged open as required. At this time pictures were painted on the wall together with other props not required for action such as chairs and tables, and even on occasion extra talent in the form of the butler holding a tray.

Various other stages in development occurred before the more complicated organisation of the modern art department was evolved; for instance, when sets in relief began to be constructed in timber the master carpenter was to a large extent relied upon to shuffle the stock panelled-room set into as many rooms as the picture in production might require. The times of which I am speaking are of course before the War, when England was the chief producing country of the world and a Western shot in Surrey would receive nothing but praise when shown in New York. I myself can remember the time, nine years ago, when property men provided all the plasterwork necessary for the most ambitious subjects produced in this country. Now the unions would very soon put paid to anything of that sort.

Nowadays we have art departments working and organised on the lines of an architect's office, numbering among their permanent staff architectural draughtsmen, quantity surveyors, sculptors and painters, and including a comprehensive reference and periodical library, an architectural model-making department and printing plant. The probable introduction in the near future of colour and stereoscopy will no doubt add to the number of experts and incidentally to the worries of the art director and the cameraman. It is, however, my opinion that when colour is firmly established it will be found principally in the costumes of the artistes and very sparingly used in the background. This opinion will be found to be amply justified by those of you who have seen "A Star is Born", the first picture shot in Technicolour not to rely on outdoor spectacular scenes to put it across. It is still unusual, in this country at any rate, for the art director or the cameraman to be consulted on the design and colour of the costumes to be worn in the sets. I have found in my short experience with colour that this omission in organisation must be repaired, or the results can be disastrous.

The composition of the modern art department consist firstly of the supervising art director who is responsible for its organisation, discipline and the direction of policy. In the ordinary course of events, depending upon the size of the company employing him and the importance of the subject being made, he will not personally art direct individual films; this work will be carried out by the unit art director under his supervision. Each unit art director has his personal assistant who, with the help of one or more draughtsmen, depending upon the urgency of the subject, is responsible for the production of working drawings from the unit art director's sketches. The various shops, sculptors and decorative artists are also supplied with full-size details from this source.

The floor manager is responsible under the supervising art director for contact between the art department and the various construction shops, such as those of the carpenters, plasterers, painters etc., and also for a most important duty, that of placing each set upon the stage in such a way that the progress of the production unit from one set to another may not be delayed by what they have already shot being in the way, or preventing the erection of future sets to a schedule that has been worked out some weeks in advance. Great care must also be taken in making these arrangements that sufficient room is allowed around each set for the cameraman to place his lighting to the best advantage.

This very necessary piece of organisation is carried out in the following way. Plans of the various stages and lots are drawn on wall board or other suitable material, tracings of working drawings for each set are made on detail paper and pinned over these plan boards in the position they are to take in the studio. When the time comes for the set to be struck, its plan is removed from the board and a new set placed upon its site. It will be readily seen that studio space available and general progress on the stages can be gauged at a glance in this way.

The art director's duties should begin directly the adaption for the screen of the selected subject is begun. It has always been my experience that much money can be saved and fewer hearts broken in the long run, if the practical possibilities in reference to what can and what

cannot be erected within the shooting schedule, the amount of stage space available, and the financial budget are discussed between the script writer, the director and the art director before the script is finally written. However, I am sorry to say that even in the best of families this Utopian state of affairs is seldom achieved.

Upon the art director receiving his script the procedure must vary according to the organisation of his department, but will be roughly that the supervising art director, if not personally designing the film, will, after preliminary discussions with the producer, hand the script to a unit art director who will read it through with the director; meanwhile making marginal notes and rough sketch plans of the action and particular requirements of the director regarding special action, and at the same time discussing fully the characters in the story, in order that they may eventually seem to inhabit naturally the surroundings the art director will create for them. He will then produce a series of esquisses to show to the director as a guide to the layout and atmosphere he proposes. The number of sketches prepared will vary with the type of picture in preparation, from one for each set for the ordinary programme picture to one for each master scene in the carefully prepared super. The medium in which these sketches may be prepared extends to any known method of painting or draughtsmanship, but the most economical for the quick and broad effects required by the art director is to my mind *fusians comprimes* on tracing paper which may eventually be mounted on mill board for more effective presentation and durability.

The importance to the art director of selecting a medium most suitable for quickly presenting his ideas cannot be overlooked, for time is usually short in the preparation stage and it is heartbreaking to have laboriously produced sketches turned down wholesale by the director. I remember hearing quite a short while ago of a famous Continental art director, who has in his time been responsible for some of the most noteworthy romantic designs in the German cinema, being engaged by a large British producing company to art direct one of their pictures, who became so engrossed in his sketching that he was one day found busily engaged upon the sketch for a set that the director was at that moment shooting on the stage—designed by another art director! Too much concentration on sketches can do one a great deal of harm in the industry. Most art directors will find with *fusians comprimes* they can produce, if they are lucky and are not disturbed too much, four sketches a day.

In the design and planning of film sets great care must be given to study of action and lighting. Sets must be designed so that the action in the script can be carried out smoothly and crisply, with as little waste of time in unnecessary action on the part of the artists as possible. The set designed must be so arranged that the cameraman has a chance to photograph the director's fast and snappy action. Breaks and columns should be provided behind which lamps may be concealed, and it should be remembered that these breaks and flat surfaces help to give a stereoscopic illusion. Up till quite recently ceilings were impossible impedimenta to cameramen, but lately their use is becoming more possible with the introduction of better lamps and faster stock. However, they are still unpopular with the sound department.

Usually the commercial art director will find himself engaged upon one of two very different kinds of pictures, namely Drama or Comedy, and in each his functions are very different. In the former he must help the story by augmenting the action by his compositions in light and shade, and in the latter must provide a pleasantly inconspicuous background which will not distract the audience's attention from the actors in the foreground.

Once the esquisse has been prepared and passed by the director, the art director, if himself an architect, will prepare rough quarter-inch scale plans and elevations of each set; from these models are built, and estimates prepared by comparing them with the known cost of sets of similar size and decoration in previous pictures. Once these estimates have been set and passed by the production manager, the art director and his assistants must curb any desire to over-embroider by putting in extra detail whilst the drawings are in the final working-drawing state or in the shops. Of course, this estimating business, important as it is, does not, as you may well imagine, work out too easily. Sometimes there have been no sets of a similar nature on which to base one's estimate; or if there are, the sets may have been built by the day shift at single-time, whereas the set on which one is now engaged will, owing to some hitch in the production schedule, be built at double-time on Sunday with plaster and timber at an advanced rate. Again the director may be so pleased or, on the other hand, so upset with what you have finally provided, that his fertile imagination will invent all sorts of additional improvements. All of these contingencies must be met as they arrive and, if necessary, explained away when the inquest is held at the end of the picture. I have a system whereby each set has a card similar to those used in card-indexing on which each contingency is entered—these cards are known in the department as alibi cards and can be most edifying on occasions. Anyhow, when used in conjunction with the drawings of the various sets to which they relate, a quick estimate of future sets is likely to be much more accurate than it would be without them.

When an artist goes sketching, or a photographer photographing, he is generally fortunate in selecting subjects recognised by the local inhabitants as fair game for those foolish enough to indulge in such a pastime. The art director on his trips abroad is not always so fortunate in his selection of subjects, and the natives' suspicions as to his mental stability are confirmed when he stands photographing and measuring all the lamp standards, fire alarms and other more unmentionable articles of street furniture, which must all be accurately reproduced to create the correct atmosphere in continental street scenes. I remember in a picture called "The Blue Danube" we had a scene where the road menders of Budapest were doing their best to emulate their London cousins. I packed my bags and about 48 hours later was to be seen trailing round Budapest looking for a steam-roller and other signs of road work. I found them much more difficult to locate than one would in London, and when at last I did, you can imagine the surprise of the Hungarian navvy when without a word I started to measure those signs which indicated "You have been warned," "Road up," etc., and photograph their steam-roller as if it were some museum piece. Actually it was, I believe, a British Invicta, but I knew the director would never believe me if I failed to produce photographic

evidence on my return. The art director in his quest for accuracy will find Government departments and other official bodies both in England and abroad only too willing to arrange for him to visit places not usually accessible to the public, such as factories, dockyards and prisons. I once lunched in the Royal Yacht and spent an afternoon in a condemned cell in the same week; I must say I preferred my lunch in the yacht.

It is usual when about to produce films about one of the Services to solicit the sympathy and co-operation of the Service involved, after which a serving officer of the rank of Commander or Major is attached to the film unit as co-operation officer. His duties are to see that all the costumes and language used (I mean, of course, words of command) will pass muster with those who have Service experience. The duties of this officer can be anything but easy, for extraordinary to relate, after all the trouble the film company takes to secure his services his attempts to maintain accuracy are often scouted, and he finishes up unpopular in the studio and hardly daring to face his brother officers, responsible as he is in their eyes for what they consider the most glaring mistakes. I must say in self-defence that the greater number of these inaccuracies seem to occur in the costuming department. So far, thank goodness, I have always finished up on the best of terms with all the official advisors with whom I have come in contact. The art director is, however, advantageously placed, for the naval commander will never fail to be intrigued when he walks on to a cruiser's bridge reproduced in the studio, and finds the voice pipes cast in plaster with their tubes made of fire hose filled with wet sand to stiffen them, instead of the regulation flexible copper tube. About two years ago we were working on "The Fighting Navy," in which we had to build the bridge of a "C" class cruiser. These bridges have on them two 12 foot Barr and Stroud range-finders, and although we were fortunate in borrowing the bases, which weigh about half a ton each, from Chatham, I was not anxious to have the actual arms owing to their great delicacy and consequent liability to damage. As an economic experiment, therefore, I constructed them of cardboard tubes instead of wooden poles (called tumblers) which was our usual practice. When we came to shoot the set, the tubes gradually began to bend like wax candles and had to be held to the roof of the studio by piano wire, which, was, of course, invisible to the camera. It gave the greatest pleasure to our co-operation officer and seemed to compensate in some way for his many other annoyances, such as trying to make a squad of crowd artistes perform as though they had spent a lifetime at sea.

After the art director has designed his set and safely shepherded it through the various shops and had it erected on the stage, he must furnish it, for although every studio has its property room, which may or may not be the marvel of resource you have all read about, it will not, however well it may be equipped and looked after, be able to provide everything he wants even for the most ordinary set. It is in set dressing that the European art director undoubtedly has it over his opposite number in Hollywood. Although their property rooms and research laboratories are undoubtedly better than ours, they have not the resources of a capital city within three-quarters of an hour's drive of the studio. I remember hearing a story of a director, Von Stroheim, a stickler for detail when dealing with his native Austria. A scene required an Austrian state coach. The studio prop room

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in conjunction with the research department instructed their agents in Vienna to measure one up and send blue prints to Hollywood, from which an exact replica was made. When Von Stroheim found this out he was infuriated and demanded the original. What is more, production was suspended for six weeks until it arrived.

Of course the art director does not choose every article of furniture for the set himself, for if he is engaged on an important production he will have very little time to leave the studio at all. A special man called a set dresser is responsible for visiting the hundred and one shops and stores from which everything from an eighteenth century stage-coach to a silver photograph frame are hired. The set dresser must be of educated taste if the art director's set is not to be spoilt and of infinite resource if all his wants and those of the director are to be met on time. For my own part I have always tried to find time to select most of the furniture for each principal set myself, but this is becoming increasingly difficult, especially since my company has moved from Elstree further from town. Getting the right kind of furniture through a set dresser should, of course, not be difficult, as the type of furniture required should be indicated in the art director's sketches.

A popular aspect of films, especially to those not actually engaged in film production, is trick work. It is, however, outside the scope of this article, for the art director's work seldom brings him in contact with it. He is more concerned with, for instance, suitable backings for windows. In the old days these were painted on canvas with varying degrees of skill in exactly the same way as those used in the theatre. A more modern method and one calculated to give a greater illusion of reality is the photographic backing. Here one selects a photograph of a suitable subject for the view through the windows in the set, and a gigantic enlargement is then made and mounted on ply or other suitable material and suspended behind the window openings. When re-photographed with the motion picture camera only the practised eye can detect the deceit. A.T.P. made a photographic backing 150 feet long and 25 feet high for their production of "Autumn Crocus." This was enlarged from a negative exposed in a Leica camera. From the historical point of view I think I am correct in saying that I was responsible for using the first photographic backing in England, for the B. & D. production of "Carnival" in 1931.

This photographic backing method is not always adequate. For instance, should one's setting depict a railway station waiting-room, a photograph behind the windows of stationary engine with stationary steam and stationary porters and passengers will not do. We must resort to a more advanced form of backing known as "back projection." First of all a camera-man shoots a scene at a railway station with a motion picture camera. This scene is then projected from behind upon an opaque screen of frosted glass or other suitable material which is placed outside the waiting-room windows. One has then an animated backing which is impossible for the non-technical audience to detect. Of course the camera photographing the scene in the studio and the projector must have their shutters very carefully synchronised to ensure a result.

From time to time the art director is brought into touch with other aspects of trick work, such as the use of building in perspective and the various devices for topping up sets. Perspective work is used in the background of sets and behind windows where there is no action required, the idea being to compress into a few feet of studio space by means of perspective building what in real life might take up many yards or even miles. Sometimes when action will give reality to this perspective work children or even dwarfs are used to give the necessary movement.

There are many devices in use for topping up sets. The principle is however always the same, namely, enough set is built to cover the action required of the artistes, and the rest necessary to make up the picture is supplied by means of a painting, a model, or a photograph; the trick being so to join it to the reality that it will be impossible to detect the junction in the finished picture. The most primitive of this type of work is the glass shot, where a large sheet of optical plate glass is placed 15 feet or so in front of the camera and between it and the set. That portion of the set which on looking through the camera appears above the actors' heads, is painted on the glass, the bottom part being left clear so that the built portion of the set and the artistes may be seen through it. This, you will readily see, saves a great deal of building. A method similar to the glass shot, but much more difficult to detect when well executed, is the foreground model, where a model of the upper portion of the set is hung in front of the camera in such a way as to join on to the reality in the background. Yet another method of saving money in this way is the background model, where instead of the model being between the camera and the reality it is built *behind* the reality. This has the advantage of allowing the artistes' heads to appear above the real portion of set built, and in front of the model. In the foreground model and glass shot it is obvious that should this happen, the artiste's head would suddenly disappear behind the painting or model. The Schüfftan process is an ingenious arrangement whereby a mirror is placed at an angle just in front of the camera. To one side the model is built so as to reflect in the mirror, a portion of which is then scraped away to reveal the set behind. This invention has two great advantages over other methods, namely, not only models but also paintings or photographs can be reflected in the mirror, and owing to the scraping of the mirror such a soft join between model and reality is made that this join can be on a flat surface, whereas in the other methods I have described a conveniently placed architectural feature, such as a cornice, must be provided at which the join must occur.

There is one other method whereby the joining is effected weeks or even months after the action has been photographed; this is known as the mat shot. Here again enough set is constructed to cover the action—no more—and the camera set up shooting right over the top of the set, showing the lamps and roof of the studio if necessary. A black mat is now either painted on glass or cut out in cardboard and suspended in front of the camera so as to prevent the lights from shining into the lens. The scene is now shot, a small piece of extra film being exposed for test purposes. Afterwards an artist paints a picture of what should occur in the portion matted out and this is eventually re-photographed on to the matted portion in the laboratory. One objection to this method is that the shape of film will change, infinitesimally of course, with variations in temperature. Should such a change occur whilst the film is being kept for the painting to be made the result may be that whilst the bottom half of the picture will look quite steady on

(*Continued on page 13*)

A YEAR OLDER

Fifth A.C.T. Annual Report & General Meeting

THE Fifth Annual Report of The Association of Cine-Technicians will be presented to members at the Annual General Meeting on Sunday, May 8th, at Anderton's Hotel, Fleet Street, E.C.4 The Association's President, The Hon. Anthony Asquith, will be in the chair and the proceedings will commence at 2.30 p.m. The meeting will also be addressed by the President of the Trades Union Congress, Mr. Herbert H. Elvin, who incidentally is the father of our own General Secretary.

The report shows continued progress. Membership is now 1,289, an advance of 167 on the previous year's figures. A further increase of nearly 200 members since the close of the year will also be reported to the meeting.

Recent events in the film industry occupy a prominent place in the report. Towards the end of the year 80% of the 10,000 persons normally engaged in film production were unemployed. A.C.T. during the past year has consequently been greatly concerned to ensure that this position of the industry was not used as a pretext to depress conditions. The vigilance of the Association during this period has ensured the minimum of retrenchment during the worst year the British film industry has ever experienced. In some cases cuts which were enforced have been restored following representations by the Association. In other cases legal advice has been given to employees asked to accept modifications of individual contracts. Successful approach has been made to certain companies to obtain payment for Sunday work and to abolish the employment of beginners at little or no salary.

STUDIO AND LABORATORY AGREEMENTS

The agreement with the Gaumont-British Picture Corporation Ltd. has continued to operate satisfactorily and subsidiary clauses have been negotiated in order to extend its application to all studio grades covered by A.C.T. After the closing down of the Lime Grove Studios the agreement continued to function in respect of the G.B. Unit employed at Pinewood Studios.

Negotiation of agreements with other studios, although in some cases commenced, has been delayed owing to the crisis in the industry.

Details are given of the threatened withdrawal of labour in the laboratories and the negotiations which were subsequently commenced.

The agreements with Associated Realist Film Producers Ltd. and Strand Films Ltd. continue to operate satisfactorily and representations have been made along similar lines to the Post Office and A.T.P. Studios Ltd. in respect of technicians employed at the G.P.O. Film Unit.

EMPLOYMENT BUREAU

The year's activities of the A.C.T. Employment Bureau are reported. 116 companies used the bureau and 791 technicians were contacted.

KINDRED ORGANISATIONS

Contacts were maintained or initiated with kindred organisations, including the National Association of Theatrical and Kine Employees, the Electrical Trades Union, technicians' organisations in the United States of America, France, India and the U.S.S.R. Conferences attended by A.C.T. representatives included the International Newsreel Federation, the Trades Union Congress, the annual conference of the National Federation of Professional Workers, a special conference of the Film Artistes' Association, and the annual conference of the N.A.T.K.E.

TECHNICAL ACTIVITIES

Contact has been maintained with the Royal Photographic Society, and Mr. T. S. Lyndon-Haynes, A.R.P.S., an A.C.T. General Member, was co-opted on to its Kiné Committee. Joint meetings have been held to discuss the question of screen credits. Mr. L. P. Williams lectured on "The Art Director in Motion Pictures" (reported elsewhere in this issue) in connection with the annual exhibition of the Society.

AFFILIATIONS

Affiliation has been made to the Trades Union Congress, the Labour Research Department, and affiliation renewed to the National Trade Union Club and the Federation of Cinematograph Societies.

OTHER MATTERS

Many other matters are covered by the report, including the problem of foreign technicians, the Film Industry Employees' Council, Films Bill activities, the Factories Act, evidence given before the Government's Commission on Holidays with Pay, and legal activities.

THE ART DIRECTOR IN MOTION PICTURES

(*Continued from page 12*)

the screen the top portion will appear to be dancing about.

In describing these various methods in use for economy of construction, I have assumed that the set requires to be built up or perhaps have a ceiling put on: there is no reason why the same methods should not be employed to build below the action. For instance, Casanova in his escape from the leads in Venice may be required to leap along a parapet in uncertain light with a sheer drop of 150 feet into the Grand Canal. Actually he will do this on a parapet built 2 feet from the studio floor and one of the methods I have described will be used to add the necessary depth without danger to the actor. I cast no doubts upon the ability of the Casanovas of the screen to emulate the original in this feat, but their necks are too valuable to the film companies that employ them to risk a slip—and moreover the set costs much less built in the way I have described.

TITLE CARDS

ART BACKGROUNDS

SCREEN TRAILERS

SCREEN TITLE SERVICE

Please note new address:

26-27 D'Arblay St., W.1

Phone: Ger. 6476

Academy Technical Awards

The following are amongst the annual technical awards recently announced by the Academy of Motion Picture Arts and Sciences for 1937.

AWARD IN CLASS I. (Academy Statuette and Plaque):

To: The Agfa Ansco Corporation for their Agfa supreme and Agfa ultra speed pan motion picture negatives.

The Agfa Ansco Corporation, in making available to the motion picture industry these two new panchromatic films has provided the production cameramen with a means of reducing working lens and aperatures, resulting in increased definition, and has provided a tool to obtain, under adverse conditions, high quality photographic results heretofore impossible.

In addition, the use of this film increases the latitude, the realism, and scope of process projection work.

The development of these two films represents a major achievement in research and emulsion manufacture, reversing what has long been considered an axiom by manufacturers and users of film stock, namely, that an increase in speed is always associated with increased grain size.

These two new panchromatic films retain to the full extent the qualities of panchromatic emulsions and at the same time provide a much higher speed while maintaining former grain quality.

Thus, the Agfa Ansco Corporation has provided the motion picture industry with a product which increases the photographic quality of production and tends to lower lighting costs.

AWARDS IN CLASS II (Plaque):

To: Walt Disney Productions Ltd., for the design and its application to production of their Multi-Plane Camera.

The multi-plane camera is a development of the Walt Disney Studios which has greatly improved the photographic quality and illusion of depth in colour cartoons, simplified process work, and is believed to be capable of extension to process and transparency background problems normally encountered in studio production.

To: The Eastman Kodak Company for two fine-grain duplicating film stocks.

It has been recognised that duplicating films of sufficiently improved characteristics are of value in protecting against loss through damage to the original negative, as well as for making additional complete copies of the negative from which release prints may be made, and for use in optical printing.

In these two duplicating emulsions, the Eastman Kodak Company has made available duplicating stock which is an improvement over any previously available, permitting duplication quality very closely approaching that of the original and at the same time markedly reducing the effects of grain size formerly found to an objectionable degree in such duplicating films.

To: Farciot Edouard and Paramount Pictures Inc., for their development of the Paramount Dual Screen Transparency Camera Set-Up.

The Paramount Dual Screen Transparency Camera Set-Up consists of two synchronised photographic cameras driven by a single motor, mounted side by side in such a manner that adjacent edges of the two fields of view are coincident regardless of distance (from the camera to infinity), permitting close screen action and a screen area of twice the width of the normal camera set-up.

This unit, by providing transparency backgrounds of twice the area of a single screen, has increased the scope of process background photography and proved of definite economic value in motion picture production. It photographs, with absolute synchronism, action taking place across the two screen areas, regardless of distance from the camera, thus permitting a perspective and panoramic effect not otherwise possible in greatly enlarged projected pictures.

To: Douglas Shearer and the Metro-Goldwyn-Mayer Sound Department for a method of varying the scanning width of variable density sound tracks (Squeeze Tracks) for the purpose of obtaining an increased amount of noise reduction.

The application of "squeeze" to variable density recordings affords an increased amount of noise reduction over that available with other current methods, resulting in greater reproduced volume range in the theatre.

With this method, the scanning width of the variable density sound track is reduced during periods of normal low modulation and accompanied by a corresponding increase in the percentage of modulation, often resulting in the recording of a truer wave form.

The use of this method leads to an increased volume range in the theatre, lending an added colour and naturalness to certain types of productions.

AWARDS IN CLASS III (Honcurable Mention in the Report of the Board of Judges):

To: John Arnold and the Metro-Goldwyn-Mayer Camera Department for their improvements of the semi-automatic follow focus device and its application to all of the cameras used by the Metro-Goldwyn-Mayer Studios.

This device facilitates camera operation by correlating the focusing of the shooting lens and finder lens and simultaneously correcting for parallax, with such precision that the position and sharpness of focus in the finder may be relied upon to indicate corresponding properties of the photographic image, thereby materially increasing the speed and accuracy of production photography, particularly in follow focus shots.

To: John Livadary, Director of Sound Recording for Columbia Pictures Corporation, for the application of the Bi-Planar Light Valve to motion picture sound recording.

The bi-planar light valve eliminates a serious form of electro-mechanical distortion caused by the striking together of the valve ribbons during the recording of high-amplitude modulations.

To: Thomas T. Moulton and the United Artists Sound Department for the application to motion picture sound recording of volume indicators which have peak reading response and linear decibel scales.

(Continued on page 18)

TEN years of what? Will the thousands of unemployed film workers get their jobs back; will they, if they do, be assured of fairly regular employment; will they get a fair week's pay for a fair week's work; will the "quickie" be well and truly buried? These are some of the questions technicians want answered. A partial answer can be ascertained from a study of the Cinematograph Films Act, 1938. The rest of the answer lies with those who can direct finance into the industry. Their action will be largely determined by the attitude and competence of producers. If the industry continues to throw millions of pounds down the drain, if it continues to be a happy hunting ground for adventurers, then the outlook for a *real* British Industry is indeed black. Because the future of our industry is not in the films which foreign companies are forced to make for quota purposes (although they provide an excellent basis) but in the films made by independent producers. A strict compliance with the quota provisions—and the making of no more films than are actually necessary to satisfy quota will at the most mean the fairly regular use of only one quarter of our studio space. Ten years ago we had not more than twenty stages, many of them primitive. The output of films in 1927 was thirty. In 1936 production had increased to 220 long and 200 short films. To-day we have 25 studios with 80 stages capable of producing 500 films per annum. The first year's quota requires only a fifth of that number. What of the balance? Will we still have champagne luncheons to announce bankruptcy, as happened in one memorable case, or will the industry be managed on sane, reasonable lines? Because while the 1938 Act is an improvement in many respects on its predecessor, the defeat of the Separation of Quota proposals makes the fundamental basis of the Act unsound. While compelling foreign companies to make or acquire films made in this country it does very little to encourage the independent British producer. The separation of renters from exhibitors' quota would have done this. It is further to be regretted that the Government has ignored the recommendation of Lord Moyne's Committee to encourage financial interests to constitute one or more organisations to finance British film production, in approved cases, on reasonable terms.

A.C.T. and the other unions issued their views on the White Paper shortly after its publication and have since pursued a steady policy along the main terms of that document. Most of the improvements in the new Act are in accord with these views. Memoranda and press statements were issued almost daily; a thousand technicians and workers packed a mass meeting at Victoria Palace, addressed by the secretaries of the six employees organisations, Lord Strabolgi, and Mr. George Hicks, M.P., representing the Trades Union Congress General Council; the public galleries of the Parliamentary Committee were crowded by unemployed technicians, and attention was drawn to the presence of our members which indicated that all was far from well in the industry; two thousand film workers mass-lobbied members of the House of Commons on the Report Stage; innumerable meetings and conferences took place, and Parliamentary groups were addressed by the general secretaries of A.C.T. and the N.A.T.K.E.; repeated representations were made to the Board of Trade; thousands of letters and circulars were sent out from the Wardour Street offices of the Film Industry Employees' Council; close contact and meetings took place with the Trades Union Congress General Council; consultations were held with the Film Producers Group of the Federation of British Industries; and there were innumerable private approaches and conversations with members of the House of Lords and House of Commons. The amendments to the Bill during its passage through Parliament reflect the success of this intensive campaign.

PRINCIPLE OF ACT

The general principle of the act is the same as that of its predecessor, namely that a certain proportion of the *total* footage of film rented and exhibited must be British. The number of quota films made, and consequently the amount of work available for British technicians, is entirely dependent upon the total of foreign films the renter chooses to import. The pursuance of the single-feature programme policy, for example, would reduce the number of foreign films imported, and the number of British films required would automatically be reduced.

WE MAKE HISTORY

We made history when an alteration was made in the long title of the Bill in order to enable it to make provisions as to the wages and working conditions of employees. This is the first time such an alteration has been made. The Fair Wages Clause, with which I will deal later, was ruled out of order by the Chairman of the Standing Committee, upon the advice of the Speaker, as it did not come within the provisions of the long title of the Bill. Therefore, at a later stage, following discussions with the Board of Trade, the clause was re-introduced, together with an amendment to the long title.

QUOTA SCHEDULES

The new act stipulates quota for short as well as long films, except for newsreels and certain advertising and educational films.

The following are the rates: the figures in brackets are the corresponding rates for the equivalent year in the first Act.

Renters' Quota

(Commencing April 1st of each year)

	Long Films		Short Films	
1938	15 per cent	(7½%)	15 per cent	(no quota)
1939	20 ..	(10%)	15 ..	..
1940	22½ ..	(10%)	17½ ..	..
1941	22½ ..	(12½%)	17½ ..	..
1942	25 ..	(15%)	20 ..	..
1943	25 ..	(17½%)	20 ..	..
1944	27½ ..	(17½%)	22½ ..	..
1945	27½ ..	(20%)	22½ ..	..
1946	30 ..	(20%)	25 ..	..
1947	30 ..	(20%)	25 ..	..

Exhibitors' Quota

(Commencing October 1st of each year)

	Long Films		Short Films	
1938	12½ per cent	(5%)	12½ per cent	(no quota)
1939	15 ..	(7½%)	12½ ..	..
1940	17½ ..	(7½%)	15 ..	..
1941	17½ ..	(10%)	15 ..	..
1942	20 ..	(12½%)	17½ ..	..
1943	20 ..	(15%)	17½ ..	..
1944	22½ ..	(15%)	20 ..	..
1945	22½ ..	(20%)	20 ..	..
1946	25 ..	(20%)	22½ ..	..
1947	25 ..	(20%)	22½ ..	..

In spite of amendments during the passage of the Bill through Parliament, the rates are still much too low. The Moyne Report visualised a quota rising up to 50%. **Yet it is not even brought up to the 1937 level until 1942—four years hence, when Exhibitors' quota is 20%. Whereas, under the first Act, Renters' quota was the measure of production, under the new Act it is Exhibitors' Quota.** Renters' quota may be satisfied in the following five ways:—

(*a*) Single quota films with a minimum £7,500 labour costs.

(*b*) Double quota films with a minimum of £22,500 labour costs.

(*c*) Treble quota films wth a minimum of £37,500 labour costs.

(*d*) Purchase of the foreign rights of a double quota film for £20,000 counting for single quota.

(*e*) Purchase of the foreign rights of a treble quota film for £30,000 counting for double quota.

If advantage is taken of one or more of the last four ways, then the renter must acquire actual footage to the extent of at least half the footage required if his quota obligations were assessed on a single quota basis. For exhibitors' quota, films only count at their registered length. Therefore, the footage held by a renter will be insufficient to meet exhibitors' quota—and, to make up the balance, films will have to be made for exhibitors' quota. Take the present year as an example. Assuming there are six hundred long films registered, and assuming again, for example's sake, that the films are all exactly the same length, then 15% of these films, i.e. 90 (in practice, of course, the actual quota is measured in footage) have to be British for renters' quota. But the Act only compels renters to acquire half that number if full advantage is taken of double and treble quota. Therefore, the renters make or acquire, or purchase foreign rights, of films equivalent to the footage of 45 films. But exhibitors' quota, for which there is no double or treble quota, is 12½%—that is, 75 films. Therefore 30 films (that is 75 less 45) will have to be made for exhibitors' quota only, for which type of film there is no minimum cost. Does this portend a new evil? An exhibitors' "quickie." I hope not, but the possibility does exist.

The quota rates may be revised within the maximum and minimum limits of the Act after one, three and or five years.

Quota for short films is on a straight footage basis and there is no minimum cost.

DEFINITION OF A BRITISH FILM

The definition of a British film is broadly the same as in the last Act. There are, however, certain improvements. A British film for renters' quota must be made in a studio within the United Kingdom (the 1927 Act stipulated the British Empire) with the exception of 10% of the total length of the film or 20% of the studio scenes (whichever is less).

The minimum amount of the labour costs that has to be paid to British subjects is 75% of the total labour costs after deducting the amount paid or payable to one foreign person (as in the old Act), **or** (in the case of double or treble quota films) **80%** of the total labour costs **excluding two foreign persons**, one of whom must be an actor or actress.

THE FILMS COUNCIL

A Cinematograph Films Council is to be set up with functions to review the progress of the industry, to advise the Board of Trade and to submit an annual report to Parliament. The Council is composed of 11 independent persons, 2 producers, 2 renters, 4 exhibitors and 2 representatives of employees.

No person convicted under the 1927 Quota Act or the present Act can serve on the Council.

Lord Templemore gave an assurance on behalf of the Government in the House of Lords, that one of the early activities of the Films Council would be to consider the possibility of establishing an apprenticeship scheme on the technical side of film production in all its branches.

FAIR WAGES CLAUSE

The Fair Wages Clause provides that makers and processors of films (all quota films: long and short, renters' or exhibitors' quota, with or without minimum cost provision) must pay wages and provide conditions of employment not less favourable than those which would be required for the fulfilment of a Government contract. The Government Fair Wages Resolution stipulates that the employer shall pay rates of wages and observe working conditions not less favourable than those commonly recognised by trade union agreement, or in the absence of such agreement, such recognised wages and conditions as prevail amongst good employers.

OTHER POINTS

The Board of Trade has power to disallow certain labour costs if satisfied they are not genuine. Further, a person shall not be taken to be directly engaged in the making of a film by reason only that he is financially interested in the making of the film, or is employed in an administrative or clerical capacity, or supplies goods used in the making of a film or is in the employ of a person who supplies such goods. While such a clause is welcomed, it has obvious loopholes. The "foreign supervisor" may soon become a major problem rather than the "foreign technician."

Penalties for breaking the Act have been increased and a renter or exhibitor may be deprived of his licence after three convictions. Where a company is guilty of an offence, proceedings may also be taken against any director, manager, secretary or other officer who consented to or connived at the offence, or whose neglect attributed to it.

Only films shown during normal hours in normal programmes can count for exhibitors' quota, and films four years or more old are barred from quota.

Quota does not have to be provided against foreign films of a special nature (such as shown to Film Societies) provided they are not shown at more than 12 theatres, including not more than six in London, and at not more than one theatre in Great Britain on any one day.

THE CAMPAIGN OF THE UNIONS

A.C.T. and the other trade unions had the following major points in their quota campaign:—

1. Increased quota for long and short films;
2. Exclusion of certain costs from the labour costs return.
3. Increased penalties for non-compliance with the Act;
4. Provision of Fair Wages Clause;
5. Films Council to include employees' representatives;
6. Minimum cost of £2 per foot for quota films;
7. Restriction of the employment of foreign technicians.
8. The setting-up of some form of apprenticeship scheme within the industry.

A later proposal which also had the strong and unanimous support of the unions was the separation of renters' from exhibitors quota.

On the other hand, strong opposition was offered to the double and treble quota proposals, and the reciprocity clauses.

OUR ACHIEVEMENTS

There have been small, although admittedly insufficient, quota increases (exhibitors' quota for long films was raised and both renters' and exhibitors' short quotas were increased). Points 2, 3, 4, 5, above have been obtained in their entirety. So has point 6, although the Act measures cost on a **labour** cost unit of £1 per foot instead of a **total** cost unit of £2 per foot.

On point 7, we were not so successful, the only slight concession being in the possible increase of 75% to 80% British labour on double and treble quota films.

On point 8 we received an assurance from the Government that the matter would be considered by the Films Council.

We did not succeed in defeating the double and treble quota proposals, or the reciprocity provisions, but modifications make them much less unsatisfactory.

We can, therefore, justifiably congratulate ourselves. At the same time, however, we must remember that the inadequacy of the quota rates will not mean as much production as during the past few years and there is little likelihood of all the 8,000 unemployed being reabsorbed into the industry. 75 long films need only be made during 1938 as against the 150 which were required for quota in 1936 and 1937. Therefore, there will probably be approximately half the amount of work. To offset this, it should be remembered that the minimum cost clause should effectively kill the ten-day "quickie" (at least, as far as renters' quota is concerned) and employment per picture should be proportionately longer. Further, the quota on short films should ensure a steady continuance of such productions.

A NEGLECTED OPPORTUNITY

It is, however, to be particularly regretted that the Government has let pass this great opportunity to encourage independent British production. No industry can be really effectively built up on foreign-financed and sponsored films. Mr. Oliver Stanley said in the House of Commons on November 4th, 1937, "I do not want our defences to be made in Hollywood. I want the world to be able to see British Films true to British life, accepting British standards, and spreading British ideals." Does he really believe he has given British producers that chance? One of the most impressive speeches on the Films Bill was from the Lord Bishop of Winchester in the House of Lords on the second reading:

"I want to see the cinema industry here, present British pictures of British scenery, giving an accurate account of our history, showing something of the energy and enterprise of our people at the present time, and setting forth some of the ideals which have been characteristic of our nation. It is, I think, a most serious matter that at present 75 per cent. of the time in cinemas is occupied with foreign films. Now if 75 per cent. of the press was owned by foreign companies we should undoubtedly feel considerable anxiety, and if in 75 per cent. of the schools of this country, the text books were those which had been produced abroad, and our children were taught by foreign teachers, we should feel that the position was quite intolerable; yet the cinema has a greater influence over many than the Press has, and over the young it has a greater influence than the schools."

Yes, the Films Act has neglected a great opportunity.

ACKNOWLEDGMENTS

While, therefore, the Act has failed in its fundamentals, the great campaign of organised labour has permitted many achievements and amendments which would otherwise have been outside the legislation. Tribute, further, it is due to the members of the six employees' organisations in the industry. At the same time, thanks is also due to Lord Strabolgi and Mr. Tom Williams, M.P., in charge of the Bill for the opposition in the House of Lords and the House of Commons, respectively, without whose indefatigable energy and excellent co-operation with the Unions the Fair Wage Clause, the employees on the Films Council provision, and other amendments directly affecting the workers in the industry, would never have reached the Statute Book.

GEORGE H. ELVIN

ACADEMY TECHNICAL AWARDS

(*Continued from page 14*)

This type of volume indicator portrays with greater accuracy the form factor of an electrical wave, and permits extension of the useable scale of volume indicating instruments.

To: The RCA Manufacturing Company Inc., for the introduction of the modulated high-frequency method of determining optium photographic processing conditions for variable width sound tracks.

This is the first available convenient quantitative method of establishing optimum processing conditions of variable width sound tracks.

To: Joseph E. Robbins and Paramount Pictures Inc., for their exceptional application of acoustic principles to the sound proofing of gasoline generators and water pumps.

The application of advanced engineering principles to the sound insulation of generators and other accessory equipment has made possible the operation of these units at high efficiency, at points relatively close to the microphone, without noise interference.

To: Douglas Shearer and the Metro-Goldwyn-Mayer Sound Department for the design of the film drive mechanism as incorporated in the ERPI 1010 Reproducer.

This is an efficient means of obtaining a flutter-free film motion for use in studio recording and re-recording operations the design of which was completed at Metro-Goldwyn-Mayer Studios.

The distribution of Scientific or Technical Awards, over a seven-year term including the current recognitions, is as follows:

NUMBER OF AWARDS

Year	Class I	Class II	Class III	Total
1930–31	2	1	3	6
1931–32	0	1	1	2
1932–33	0	2	1	3
1934	0	1	2	3
1935	0	2	7	9
1936	1	2	4	7
1937	1	4	6	11

It will be noted that this year the total number of successful nominations is the highest since the inauguration of this Award.

DUFAYCOLOUR

Dufay-Chromex have issued a comprehensive booklet on Dufaycolor giving useful technical data on the process. A copy may be obtained upon application to Dufay-Chromex Ltd., 14-16, Cockspur Street, London, S.W.1.

OBITUARY

We regret to announce the death of JULIAN P. WITHERS, sound camera operator at Sound City Studios, as the result of a motor-cycle accident at Coulsdon, where he lived, on February 9th, 1938.

We convey the deepest sympathy of the Association to his family and friends.

£10,000,000 FOR £18

THE FILM SOCIETY'S CENTENARY

Dear George,

It was nice to hear from you. I'm glad you enjoyed the Film Society lunch at the Café Royal on Feb. 20th. I gather it was a good lunch. I envied you eating my portion, as I sat in my Spanish hotel, gnawing a cut off the best end of a mule, and cracking thirteen (count 'em) Barcelona nuts. I thought of you sitting in the New Gallery afterwards with your stomach all aglow, while the veteran copy of *Caligari* tottered through the projectors in celebration of the 100th performance.

Did you know that the Society first showed that picture in its sixth programme on March 14th, 1926? And that it was made on tick by penniless German technicians in the days of the great depression after the Great War? That all the stock sets available were so decrepit that it proved cheaper to re-paint these canvas flats and substitute DESIGN for UNCONTROLLED NATURALISM? That out of this burst of energy of brain and brawn a film revival arose that brought wealth and fame to the German cinema from all over the world?

Is it possible that our present slump could throw up a cheap film that would startle the world? Why not? As long as the slump does not disgorge a gobbet of fascism, we might as well look for a bright side in these days that "couldn't be worse."

Have you looked at that brochure *Film Society History*? Around 600 films are listed there. Have you ever thought of the thousands of films seen and considered from which those few hundred were finally selected? The telephone calls, telegrams, letters, contracts, translations, journeys, projection, editing, titling, rehearsing involved? All right. Avert your mind, if you will. The Film Society is at your service.

Many of these few hundred would never have had a showing here but for the Society's interest in them. "Mädchen in Uniform" for one.

Some of them have never been shown in these islands again. For instance, "Die Dreigroschenoper," Pabst's film version of Brecht's play with the bitter, nostalgic music of Kurt Weill. Some have. But of these very few have been seen again in their original state.

Take "Ekstase." Here was a film from Prague that was immensely impressive in its original form in spite of a pedestrian musical score. But I doubt whether any audience in the world other than the members of the Film Society saw that film as its producers intended it to be shown. Censors nibbled at it in every country. The version now running in London (five years late) has had some three minutes removed by the English censor, but far more had already been cut by censors in other countries. The result is a slow, sex-conscious effort, with all the emphasis on the ADULTS ONLY ticket. The several hundred feet which have been cut were the making of the film, leaving it fresh, healthy and unrepressed. If anyone believes that the present warped, repressed, castrated version bears any relationship to the very lovely film of five years ago, let him chase the idea right out of his mind.

Among other importations shown by the Society and subsequently twisted and markedly thrown out of balance by censorship were "Karamazov," the French "Crime and Punishment," Guitry's "Roman d'un Trieheur," and many of the Soviet masterpieces, the most recent being "We from Kronstadt." "Karamazov" was so mutilated that Goldwyn took his Hollywood version off the floor when he was warned by cable of the English censors' attitude to the story.

Questions have been asked in the House of Commons regarding the enthusiasm evoked by some of the Society's presentations. Members of Parliament were alarmed to learn that English men and women could stand on their seats and cheer black and white images on a flat screen.

The manager of the Phoenix Theatre received an anonymous postcard warning him that should "The Blue Express" be shown by the Society in his theatre, the premises would be bombed. The Express ran on schedule, but the bomb did not keep its promise to appear.

The most startling (and sobering) of Film Society presentations—again unique—was the "Record of War" in the 98th programme. The Abyssinian War, seen from either side alternately, was too much for the audience. After two hours of relentless demonstration, they left the theatre, shocked and shamed into uneasy silence. The winning side have decreed that this presentation must not occur again.

What more would you know of the 100 programmes? Here among players Bergner, Garbo, Sten, Krauss, Veidt, Fernandel, the Soviet players, countless stars of all nationalities have made their bow on the British screen. The work of a host of directors has been introduced for the first time—Leni, Berger, Pick, Wiene, Clair, Cavalcanti, Grierson, Sjöstrom, Renoir, Ruttmann, Eisenstein, Pudovkin, and the rest; the fantasies of Méliès, Reiniger, Fischinger, Bartosch, Moholy-Nagy, Cocteau; Jewish, Russian, Japanese, Chinese, Mongolian, Polish, Indian, Turkish, Italian, every nation that possesses a movie camera has contributed to these shows. The capital investment in these productions must have exceeded £10,000,000. Ten million pounds worth of celluloid not otherwise available, privately paraded over thirteen years for a membership charge of £18. (100 x 3/6d.)

It's a gift, George.

Yours in consternation,

THOROLD DICKINSON

Barcelona, March 24th

* * *

GROWTH OF DEMAND FOR RELIGIOUS FILMS

During the season ended March 31st, 1937, 1,860 demonstration religious film programmes were given in churches. In addition to the film programmes, 102 other exhibitions and demonstrations were arranged by the Religious Film Society.

During the year 1937, there were over 1,400 bookings of films from the Society's religious film library, and many more bookings have come through the Society and have been passed on to other film libraries.

About the middle of 1937 a contract was entered into for the supply of 200 sound projectors to Churches, Sunday Schools, and other religious bodies. This arrangement was made with Gaumont-British Equipments, and as part of the scheme Gaumont-British Instructional undertook to make six new religious films in collaboration with the Society.

Cinema Log

by KENNETH GORDON

DOCUMENTARY FILMS SHOULD BE THE PROFESSIONAL'S PROVINCE

MET John Grierson, much publicised documentary chief, and enquired why he encourages amateurs to take up the making of documentary 16 mm. films in competition with the professional who has been so hard hit by the trade slump. His reply was that a number of concerns had only £50 to spend on film propaganda and so he recommended these clients to hand their filming over to amateur cine societies as he didn't think the money worth a professional film technician's consideration.

I undertook to show he was wrong. And here are a few rough figures to prove it. Many technicians who are out of work could do these jobs and profit could be obtained by any firm backing such a project.

(All figures are for 16 m.m. film).

	£	s.	d.
Hire of camera (1 week)	2	2	0
400ft. neg. stock (equivalent to 1,000ft. 35 mm.)	4	4	0
Printing 400 ft. (1 copy)	2	10	0
Developing Neg.		12	0
Cameraman	15	0	0
Lights (if required)	5	0	0
Travelling and general expenses	6	0	0
Editing	2	2	0
Making and Printing Titles	2	2	0
	£39	12	0

leaving us £10 8s. 0d. for incidentals, or £15 8s. 0d. if lights are not needed.

I personally have a great respect for our amateur friends, and have seen some very good work turned out by them. But hospitals, churches and other institutions requiring the greatest appeal in the 16 mm. field with limited funds should know that they can obtain a professional job at these figures. Music and commentary can be added if a little more cash is available.

SAYS ANDREW BUCHANAN

As guest speaker at the London Film Institute Society's showing of sub-standard films, Mr. Buchanan spoke in challenging vein. Quotes *The Cinema*:

"He stressed the importance of keeping the amateur movement alive, saying it was an example to the professional industry and that he had seen a film costing £5 which had shown more ingenuity and appreciation of film values than some mammoth picture. Mr. Buchanan pointed out that the non-professional has freedom to do what he likes—the amateur, too, does not think of film making in terms of money".

You're telling us, Mr. Buchanan!

After some more deprecatory remarks concerning the British industry, the effect thereon of Bills, and the high wages thought by some technicians to be their due: "If", said Mr. Buchanan, "we have succeeded in making better documentaries than any other country, we should extend this field. Amateurs were keeping alive this spirit and were more liable to create a true revival than any Bill".

There were a lot more documentary garnishings in his speech which space prevents my reporting. What I want to point out to Mr. Buchanan is that his name has been built on the loyal co-operation of professional technicians. Many documentary people learned their job in a Government department, where time was no object. Professional film folk have had to contend with commercial supervision. I welcome the documentary, but dislike this continual depreciation of the professional technician. My own work and that of my colleagues in this field is turned out in a day or part of a day, and the resulting films are highly commercial and not entirely inartistic. They have had a market in all parts of the world and many times have been used as cut-ins and backgrounds for major productions both at home and in America. The screen magazines to which they are a contribution hold the record for the longest continuous run in the motion picture world.

Buchanan made his name by his linked commentary in Gaumont Cine-Magazine—Grierson by "Drifters". Each were backed by a first-class professional technical crew. "Drifters" received very wide praise and is regarded as a landmark in documentary. But it is not the only possible story to be found in the herring fleets. The drama of the thousand or more boats, fishing in hundreds of miles of stormy waters, catching millions of herrings, and the thousands of families dependent on the vicissitudes of the shoals and markets, has never yet been told in motion pictures.

Why not stop riding the professional film technician, documentary chiefs?

ERIC MAYELL COMING HOME ON HOLIDAY

Eric Mayell, English-born "ace" American newsreeler and "Panay" hero, is coming home for a rest.

Eric, who will be remembered as one-time editor of Pathé Gazette and as a founder member of the old Kine-Cameramen's Society, has been for many years in America. He is a member of I.A.T.S.E. Local 659 and has been newsreeling in the China War for Movietone with his Bell & Howell Eyemo.

Eric Mayell says: "It's quite a relief to be in a war where you are only dodging bombs and what-not occasionally, instead of living in Los Angeles where you are dodging sudden death from automobiles all the time."

We'll be seeing you, Eric.

GOOD NEWS

The Korda-United Artists deal is through. A.B.F.D. have signed George Formby and his picture "In The Air" goes on the floor at Ealing June 6th, following "Penny Paradise" starring Edmund Gwenn, whose contract calls for two more during the summer. "Black Limelight" hits the floor at A.B.C. Elstree. Pinewood and Gainsborough have a number in preparation. Teddington are well away. Welwyn and Walton are working to schedule.

(*Continued on next page*)

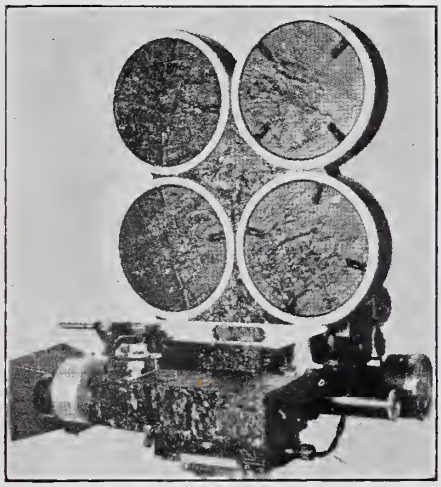
CINEMA LOG

(Continued from previous page)

SOME FEATURES OF THE DUPLEX CAMERA

From America comes news of a new 35 mm. Cine camera.

Weight 20lbs., with 3 lenses and view finder—capacity 1,000 ft. or 400 ft. Bi-pack magazines for colour work—shutter 3-blade, 220 degrees with hand dissolve—focussing accomplished without racking through telescope on ground glass—has pilot pins and pressure pad release—buckle switch and reset—ball bearings throughout—aperture plate hardened steel which is hard chromium plated, polished and lapped to a mirror finish to which emulsion will not adhere—lens mounts on revolving turret for 3 lenses, mounts designed for hard wear, scaled in feet and also graduated for Bi-pack film—sun shade is fastened to extension arm of the camera itself and allows 2″ filters to be used in holder, camera is easily threaded and has ample room for Bi-pack (2) films. Door cannot shut unless sprocket rollers, pilot pins and gate are correct. Magnified erect image view-finder.



View of Duplex Super Camera with Bi-Pack Magazine.

CHEMICALS FOR PHOTOGRAPHY

Readers interested in the above can be put on the mailing list of Messrs. Johnson & Sons, the manufacturing chemists of Hendon, by sending a postcard to the A.C.T. office.

HIRE OF LIGHTS

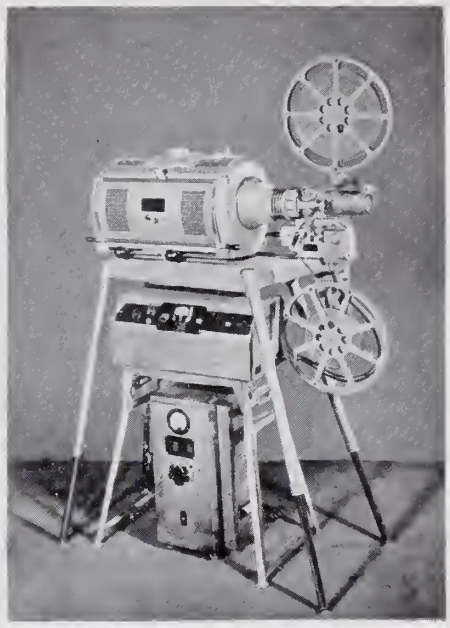
Mr. Page of Mole-Richardson tells us he has added considerably to their hire stock, such as 10 k.w. suns, 36″ suns, sound booms, control trucks and special effects. Their services cover a 24-hour day and a phone call to Willesden 6834 or Elstree 1513 will bring their silent mobile generator and efficient plant to your service.

CRAZY FINANCE

An example of the "overpayment" of film workers is illustrated by the following advert. in a London paper. "Man for film dispatch dept., wages 25/– per week. Hours: Tuesday 9 a.m. to 5.45 p.m., Wednesday, 10.30 p.m. to Thursday 9 a.m., Friday 9 a.m. to 5.45 p.m., Saturday 9 a.m. to 1 p.m., Sunday 10.30 p.m. till Monday 9 a.m. Write, stating age, etc., to Box ——"

NEW B. & H. 16mm. PROJECTOR

A new 16 mm. projector for large halls using an arc as illuminant is being marketed by Bell & Howell. This sound projector has been specially engineered after a long period of experimentation and gives screen illumination four times as bright as present models. Carbons are auto-positioned by electric control to maintain uniform gap as they burn. This equipment will only operate on alternating current at present—special carbons are used. The projector is supplied with a choice of lenses, either 2″ f.1.6, 3″ f.2.3, 3½″ f.2.7 or 4″ f.2.8.



Film Arc Projector.

SPEED LENSES, A BABY AND ALL THAT

While I was congratulating Shaw Jones on the birth of a daughter, he told me some interesting facts about his camera hire service. He has equipped his camera fleet with a batch of fast lenses, Ross f.1.9s, for shooting his colour speciality, Dufay-Chromex. His Newman Sinclair cameras are working at present in Algiers, Spain, Switzerland and the Sahara Desert.

Shaw Jones has a programme of films, chiefly colour shorts, lined up to date. Last year, in spite of the industry's state, he made 15 films and he has completed three this year. Expect to see his "brand new daughter" starring in some of the 15—a baby is cert Box Office.

* * *

VOLUME THREE

Our last issue completed Volume Three. An index is issued as an inset to this number.

Self-binding Cases, large enough to hold two volumes of "The Cine-Technician" may be obtained, price 3s. 6d. each, postage extra, from A.C.T., 145, Wardour Street, W.1

GEORGE MÉLIÈS—PIONEER

Méliès started his career as a factory worker, but after a variety of jobs—as mechanic, cabinet maker, painter and caricaturist, he bought the Théatre Robert-Houdin in Paris, where he staged spectacular shows of magic and illusion. Besides being a producer and a principal performer—conjuring was a life-long passion of his—he took a hand in any work there was to be done—scene painting, prop. making, the devising of special lighting effects, etc.

On December 28th, 1895, the Lumière brothers gave the first public exhibition of the cinematograph, in the basement of a Paris café. But although the audience of 35 people were duly impressed, the Lumières foresaw for their invention only the short life of a scientific curiosity.

Méliès, however, was one of those 35, and with his mechanical knowledge, his fertile imagination, and his eight years' experience of the entertainment world, he at once glimpsed far greater possibilities. Since Lumière refused to sell his equipment at any figure, Méliès made some of his own, bought film from Paul, the pioneer English producer, and soon was photographing the varied life of the Paris streets. Next he turned his attention to his own theatre and filmed one of the main acts, a disappearing trick, but the film was not a success.

He refused to be discouraged and in 1895 made his first important discovery. An accidental jam in his camera revealed to him, when the rushes were projected, the possibilities of stop and start motion, and he commenced immediately to exploit them. Soon he was using dissolves, super-impositions, reverse shooting, double exposure, slow and fast motion, and one-turn one-picture photography, and no longer depending on theatrical tricks for his effects.

His discoveries, known only to himself, gave him a pre-eminent position among producers, and in 1898 he built the first film studio, "a cross," as he described it, "between a photographic studio, and a theatre stage," with trapdoors and machinery for "flying" effects, etc., as at the Robert-Houdin, and with a glass roof so that artificial light could be as far as possible dispensed with.

Here he could combine his old art of conjuring with his discoveries in the cinematographic field. He progressed beyond the original type of film with a single setting and a single piece of action, and by 1900 had made three "super productions," "Cendrillon," "Petit Chaperon Rouge," and "Barbe Bleu" each 1,500 feet long, as well as a regular production of one film a week. All films were hand tinted and the range and brilliance of his colours are surprising even to the eye accustomed to modern colour cinematography.

Soon he passed on to fictional subjects, usually choosing semi-scientific fantasies reminiscent of the works of Jules Verne, but with a strong fairy element. His preparatory drawings alone are a witness to the richness and fertility of his imagination, ranging from factories full of strange and wonderful machinery to web-footed, claw-handed denizens of the moon, from pantomime figures riding horse buses to the constellations inhabited by their appropriate figure of the Zodiac. These films had an international distribution: "The Kingdom of the Fairies," one of the most widely exploited of early motion pictures, was accompanied by a special musical score at its premières in Paris, New York and London, in September, 1902.

Méliès, however, did not confine himself to fantasies, but staged dramatic reconstructions of important contemporary events, notably "The Dreyfus Case" and "The Coronation of Edward VII."

In the early years of the present century, duplicate copies of the films were often made and sold without authorisation. To protect himself against this practice, Méliès sent his brother Gaston to New York, where he opened an office, and issued a list of Méliès's "Star Films"—probably the first trade mark in the business—and a warning to "all counterfeiters and pirates." In December, 1907, the company was one of the foundation members of the Edison Licensees, a group formed to end years of litigation over patent rights and which, one year later, became the Motion Picture Patents Company.

Hitherto, producers had for the most part sold copies of their films outright to the exhibitor, but with the development of the renting system, Méliès found his business falling off. He preferred the quicker return brought by direct selling, since he wanted to go ahead with further production: but exhibitors found the new system more convenient. Between 1908 and 1910, with the boom in American production and the discovery by rival French firms of many of Méliès's secrets, his difficulties intensified.

In 1914, his offices were taken over for war purposes and an almost complete set of his films destroyed for the lack of the money necessary to rehouse them. He went on producing, none the less, concentrating on fairy stories for children—"The Enchanted Lake," "The Dragon Fly Fairy," etc. But the conception of screen entertainment was changing, and Méliès did not care to introduce into his productions the stars and other modern innovations which the exhibitors demanded.

After the war he remained in obscurity until, in 1928, he was found selling newspapers in the Paris streets. For a time he sold sweets and cigarettes near the Gare St. Lazare at a kiosk bought for him by public subscription, but, getting too old for this, he was admitted in 1933 to the Maison de Retraite d'Orly, at the instance of the Chambre Syndicale Française du Cinématographie, which he founded in 1897 and presided over for 10 years. Here, in January of this year, he died of cancer, penniless, leaving not enough money to pay for his funeral. The funeral expenses were defrayed by French and English film workers, who thus paid belated tribute to one of the earliest and greatest pioneers of their craft.

"A TRADE UNIONIST'S VIEW OF POLITICS"

Labour Publications Department. 1d.

To those to whom trade unionism and industrial politics are still a mystery this pamphlet will give a crisp and concise outline of labour history and its present aims and objects.

To the cinema worker or employer it will explain many things that will have appeared crazy in the passing of the Films Bill. A.C.T. members will find this little book helpful in consolidating their personal outlook about political action by organised labour

PRECISION EQUIPMENT.

STEEL CUTTING TABLE

FILMS & EQUIPMENTS LTD.

145 WARDOUR ST. :: LONDON, W.1.

LAB TOPICS

LIME FOG AND ITS PREVENTION

Lime fog is a deposit of almost insoluble lime salts on neg. or pos. films in the form of whitish obscuration. The lime salt that usually forms this fog is CALCIUM CARBONATE and its soluble acid salt is CALCIUM BICARBONATE. It is almost always found in water, which makes the water hard. When water containing much lime, i.e., of 10° hardness, is used for washing between the developing and fixing processes, this water becomes quickly cloudy and a deposit is formed on the tank or tube bottom. This deposit can be dissolved by acids with effervescence due to the formation of CARBONIC ACID.

This deposit on the tank or tube contaminates the film stock in the form of lime fog. The action of the ALKALI-SODA carried over from the developer is to convert the soluble CALCIUM BICARBONATE into insoluble CALCIUM CARBONATE.

Lime salts may come from the light sensitive films. Even if the water is free from them, the gelatine may contain them. Indeed it nearly always contains CALCIUM CARB. and often CALCIUM PHOSPHATE and CALCIUM SULPHATE. These dissolve in the emulsion preparation and remain as soluble salts in the film stock. On development they are precipitated in part into the developing solution as CALCIUM CARBONATE, making it cloudy in use and in a large degree this cloudiness consists of CALCIUM SALTS, especially CALCIUM CARB., which causes lime fogging to commence in the developer.

In cinematograph laboratories with the developing solutions in intensive use this lime deposit causes slime in tanks and tubes. These insoluble salts are white in colour, but in their precipitation they take with them the coloured oxidation products and particles of silver and dirt and thus form coloured deposits.

The remarkable properties of SODIUM HEXAMETAPHOSPHATE ($Na\ PO_3)_6$ were discovered. Generally the phosphates of alkaline earth metals are insoluble in water and also do not dissolve in excess of alkali phosphate, the phosphates of METAPHOSPHORIC ACID and similar compounds make a notable exception. With an alkali, METAPHOSPHATES in a lime salt solution not only prevent precipitate forming, but also deposits of CALCIUM CARBONATE, CALCIUM SULPHATE or CALCIUM PHOSPHATE already present are dissolved. Dr. Karl Kieser of Benel-on-Rhine suggested the use of SODIUM HEXAMETAPHOSPHATE as a remedy for lime fog in the photographic world. In its solutions SODIUM HEXAMETAPHOSPHATE has a p H. of about 6, and therefore is slightly acid. To prevent any lessening of the developer strength, it is recommended that instead of pure SODIUM HEXAMETAPHOSPHATE, a mixture of phosphates with a p H of 8.5 be used. This is marketed under the name of "CALGON" by Johnson's the chemists.

This is used in the proportion of 1–3 g. per litre of developer, and prevents difficulties, including those caused by lime content of washing water and fixing baths. Besides the prevention of lime fog on stock, it will cure the lime deposit on tanks and tubes.

NITRATE OR NON-FLAM?

Mr. A. E. Amor lectured to members of the R.P.S. Kine Group recently on why inflammable film was still being used in preference to non-flam.

Why, he asked, was not non-flam universally used? The answer was that the physical characteristics of cellulose acetate were entirely different from those of the cellulose nitrate inflammable support. The nitrate base would always have preference because it gave from two to four times as many runs.

In discussion, one member mentioned, however, that recent researches in Germany showed that the running life of cellulose acetate was 15% below that of nitrate. Another said one hundred copies of a film on coloured non-flam had recently been released and complaints were were being received that they were not standing up to the work. We laboratory workers know non-flam as being very difficult to work with, as it curls up badly and is very hard to make perfect joins with.

CHARACTERISTICS OF NITRATE FILM

The inflammable base is a mixture of camphor and cellulose nitrates. Its energy is somewhat restrained by the camphor, but it bears a close relationship to the powerful explosive, gun-cotton, in that it ignites with explosive energy purely by heat or condensed light without contact of a flame. The chief ingredient, cellulose nitrate is formed from cellulose, which comes from the woody material of plants and is found almost pure in cotton wool, hemp, etc. This is treated with a mixture of nitric acid and sulphuric acid to result in cellulose nitrate.

PARAGRAPHS

The new system of light changing recently introduced on Debrie printing machines eliminates the possibility of light or dark frames at the change. The light intensity is no longer varied by resistance: instead, the template, which is punched with holes of the appropriate diameter for each exposure is interposed between light source and film.

It is rumoured that British Chemicolor are to make a fresh start at Boreham Wood. A new three-colour process is being mentioned.

Our membership is still growing and approaches 100% in some labs. Each member should set himself or herself the task of recruiting one non-member a month.

An A.C.T. lab bulletin is now issued on alternate months to "The Cine-Technician" in order that all lab members can get monthly news of activities. The first issue was on April 1st, and a copy may be obtained gratis from lab secretaries or Head Office.

Anent the old joke about "sharps" in the bath. An exhibitor sent in a neg. of a local event for developing and printing: after development it was found to be too hopelessly out of focus to be worth printing. A wire was sent to this effect and the reply came: "What the hell do you think I've got focussing on the projectors for? Print it!"

WHAT'S IN A NAME?

Now then you photographic chemists, I want six ozs. of MONOMETHYLPARAMIDOPHENOL SULPHATE weighed up! Which of your stock of chemicals is this? Well?

To tell the truth, it's only pure metol all dressed up high and fancy ready to take a dive into some warm water.

GAMMA

A.C.T. Reading Room and Library

The following publications are received regularly and may be consulted and read at the A.C.T. office :—

DAILY :

British Publications:

The Cinema
Daily Film Renter
British Studio News

WEEKLY :

Kinematograph Weekly
British Journal of Photography

MONTHLY :

The Ideal Kinema
Cinema & Theatre Construction
Projectionists' Journal
World Film News
The Photographic Journal

BI-MONTHLY :

The Cine-Technician

QUARTERLY :

Sight & Sound
Spotlight

YEAR BOOKS :

Kine Year Book
The Year's Photography
The B.J. Photographic Almanac
The Alliance Year Book

American Publications:

DAILY :

Motion Picture Daily

WEEKLY :

Motion Picture Herald

MONTHLY :

S.M.P.E. Journal
American Cinematographer
International Photographer
Kodak Abstract Bulletin

BI-ANNUAL :

Technical Bulletin of Academy of Motion Picture Arts & Sciences

YEAR BOOKS :

Motion Picture Almanac
American Cinematographer Handbook and Reference Guide

French Publications:

MONTHLY :

La Cinematographie Française

YEAR BOOK :

Le Tout Cinema

Czechoslovakian Publications:

MONTHLY :

Ceskoslovenska Kinematografie

Hungarian Publications:

MONTHLY :

Filmkultura

YEAR BOOK :

Filmmüvészeti Evkönyv
Film Sound Technical Year Book

Indian Publications:

MONTHLY :

Filmindia
Journal of the Motion Picture Society of India

THE FOLLOWING PUBLICATIONS MAY BE BORROWED BY MEMBERS FROM THE A.C.T. LIBRARY

Title	Author
The Art of Film Production ...	Andrew Buchanan
Coloured Light	Major Adrian Klein
Colour Cinematography	Major Adrian Klein
Filmcraft	Adrian Brunel
Only Yesterday	Adrian Brunel
Film Production	Adrian Brunel
Movies on Trial	William J. Perlman
Paprika	E. Von Stroheim
Popular Television	Barton Chapple
Portrait Photography	Franz Feidler
Soviet Cinema	Various
Star Turn	René Clair
Theatre and Motion Pictures ...	Extract from Encyclopædia Britannica
Twenty-five Years of Films ...	G. R. Doyle
Waterloo in Wardour Street ...	E. Siepmann
Money Behind the Screen ...	F. Klingender and Stuart Legg
Amateur Movies	Alex. Strasser
Successful Film Writing	Seton Margrave
Icy Hell	Will E. Hudson
Hollywood Through the Back Door	E. Nils Holstius
Romance of the Movies	Leslie Wood
American Film	Eric H. Rideout
Better Photographs	Marcel Natkin
How to Write and Sell Film Stories	Frances Marion
Sound Recording for Films ...	W. F. Elliott
Popular Entertainment Through the Ages	S. McKechnie
Footnotes to the Film	Charles Davy
Continuity Girl	Martha Robinson
The Face on the Cutting Room Floor	Cameron McCabe
Movie Parade	Paul Rotha
The Complete Projectionist ...	R. Howard Cricks
Scruffy	Claude Burbidge
The Film Game	Low Warren
Writing for the Films	L'Estrange Fawcett
How to Write a Movie	Arthur L. Gale
Trade Union Documents ...	Milne-Bailey
The Cinema as a Graphic Art	Vladimir Nilsen
200,000 Feet on Foula	Michael Powell
Promised Land	Cedric Belfrage
John, Film Star	Evelyn Eaton
The Seven Soviet Arts	Kurt London
Film Music	Kurt London
Elephant Dance	F. H. Flaherty
Money for Film Stories	Norman Lee
Movies for the Millions	Gilbert Seldes
Film and Theatre	Allardyce Nicoll
Photography To-day	D. A. Spencer
Plan for Cinema	Dallas Bower
Film Acting	V. I. Pudovkin
Careers in the Films	Robert Hunfrey
British Films	"An Englishman"
A Statistical Survey of the Cinema Industry in 1934 ...	S. Rowson
Behind the Screen	Edited by Stephen Watts

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Max Anderson, Sidney Cole, George H. Elvin, Kenneth Gordon.

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Recent Publications

AMERICAN CINEMATOGRAPHER HANDBOOK & REFERENCE GUIDE

(Second Edition).

Written and Compiled by Jackson J. Rose, A.S.C.. American Society of Cinematographers. $3

This little book certainly justifies its title. It is full of useful information on cinematography; not merely standard, but 16mm. and 8 mm. as well. It contains all that is in Westenberg's well-known book, and considerably more besides. There is, for instance, a clear and concise section on the various filters used nowadays, explaining not only their exposure factors, but their exact use and effect; an elaborate and detailed section on all the well-known modern cameras, both American and European, their construction and capabilities. The tables on lens stops and shutter exposures seem to cover every possible combination. One unusual, but very useful, table gives the necessary camera speed-up for increasing the apparent speed of motor-cars. It deals with the various makes of miniature cameras using 35 mm. film, has several pages on wipes and make-up, and is, on the whole, a book which would be useful to all film-technicians, not only to the cameramen. Besides its more usual contents it has a fair amount of odd data, such as advice on handling material under tropical and arctic conditions, and a camera check-list which would make it impossible to leave anything behind when going on location. It is a pity that its price of approximately 12/6 is so high, otherwise it would, I am sure, get the wide sale it undoubtedly deserves.

E. A. GRAHAM

N.B.—Special arrangements have been made whereby if ten or more copies are ordered through A.C.T. members may obtain them at a price of $2.25 *(approximately* 9/6*). Orders, with remittance, should be placed through the Secretary, A.C.T., 145, Wardour Street, London, W.1.—Editor.*

INTELLIGENT HOKUM

HOW TO WRITE AND SELL FILM STORIES

By FRANCES MARION. John Miles. 12/6 net.

Of the making of books about films there is no end, and of those that are made few have as much justification as this. From the outset Miss Marion makes it clear that this is not a book on how to write scripts; it is on how to write short stories that will be suitable for screen adaptation, and it is frankly written for the American market.

No useful purpose could be served by saying how well and clearly it is written as little can be added to the official "blurb". The point that interests me most in it is the use that it will be to our British scenarists, and the angles they will be able to obtain from it on the putting over of intelligent hokum. The author and scenarist of such successes as "The Champ", "Min and Bill", "The Big House" and "The Yank at Oxford" is, I think, the best person in the world to write about the good commercial picture, the typical M.G.M. product, the film story that appeals to the greatest numbers at the box-office. It is frequently felt that many of our younger scenarists are comparatively inexperienced people whose knowledge of life has been gained in the bars of the West End, where they talk "film" but cannot talk "life". Miss Marion herself says that "a writer who has never experienced in any degree the emotions he seeks to depict, or in whom no semblance of emotion is aroused by imaginative writing, is most unlikely to contrive a scene that will thrill others . . . . It is the recognition of the emotional content and the emotional effect of experience that gives a writer his power".

It might be useful for the young scenarist to steep himself in this book, get at the kernel of its truths, and apply its principles rigidly to his own work, particularly where it stresses the economy of means, the sparing use of dialogue as such, and the need for showing almost every phase of development and emotion in terms of action. The effort might be long but certainly not wasted. Among the important chapters for him should be those on Characterisation, Dialogue, Emotion, and Common Errors.

Finally there is the script of "Marco Polo", by Robert Sherwood, which fully justifies the space it takes up. On all counts, one of the best and most practical books on the subject we have yet had.

J.N-B.

YOUR PASSPORT, SIR (AND MADAM)!

Careers in the Films. by Robert Humfrey. Pitman. 3/6 net.

Let's all start again. Go back, one, five, ten or more years to that time when we decided to work in films. We'll assume the publication of this book coincided with that urge or whatever it was drove us into films.

Being sensible we bought this newly-published book (or our parents did for us), as its dust jacket says it "enables the would-be entrant to the film world to acquire that sound knowledge of film technique which is practically the only passport to employment in the studio."

We read the book. Then we act in accordance with the knowledge we have assimilated. Off we go!

1. We remember pages 7 and 10 and ask advice of a distinguished critic. "Dear **Mister** Lejeune" we start. Oh, la, la!
2. Read a little more film history. Perhaps we read about William Friese-Greene's patent of the first motion-picture camera in 1889. Then we remember Mr. Humfrey's account of the early days of the British film industry. Page 18 says the first camera was in 1894. As to Friese-Greene, he's not even mentioned. So there! Still we never did like history.
3. Now for a job. Let's start in the labs. So we visit the Technicolor Laboratories at *Denham* because that's where page 94 says they are.
4. Having walked back from **Harmondsworth**, Mr. Humfrey, we turn to your appendix and see what other labs there are. More than half of them have disappeared overnight. Dear, dear! Still, the rest are charming places. Page 82 says the floors and walls are lined with glazed tiles and there is air-conditioning which keeps them at a constant temperature irrespective of exterior conditions. All the labs, Mr. Humfrey?
5. Let's try elsewhere. Ask a studio for a job as a "clapstick boy". He's found on Page 8 and frequently thereafter.

6. We'll try again. Pages 35 and 36 should help us. There's a list of the jobs in a studio working down from the top. Let's take our choice.

   Casting director, the second most important person in the studio?

   Or an electrician. He's more important than a sound engineer.

   Or perhaps an editor. Sorry, that's out. There's no such person unless he is meant to be extracted from the "tailors, cutters, and fitters" attached to the master and mistress of the wardrobe.

   Or perhaps our old friend the mythical clapstick boy. He's listed many lines above the make-up specialist.

7. No luck? Let's try the labs again before we go home. Because page 40 says you'll find them in one of the studio blocks. And you'll still be looking for them if you went to Pinewood, Sound City, Ealing, Teddington, Walton-on-Thames, Worton Hall, Welwyn, Gainsborough and others.

8. Let's give it up, be independent, and set up as a free-lance cameraman, remembering page 78 told us there are many remunerative branches to free-lance work and there is no limit to the various kinds of work the free-lancer can take on. But wrap-up well, as hanging about Wardour Street is a cold job. Doesn't Mr. Humfrey know that there's hardly a free-lance man who wouldn't exchange his lot for a regular job? People are free-lance because they have to be. Not because they like it.

9. Still, keep at it, particularly if you are a young girl, as you have only to make fair headway and you will be extravagantly well paid. It says so on page 89.

10. Cheer up! better times are coming. Remember page 6. The Government have promised to "afford adequate finance for reputable production organisations capable of turning out films that could be guaranteed to earn back a sum at least equivalent to production costs." Play the game, Oliver Stanley! You should have told the trade this and not made Mr. Robert Humfrey your only confidant.

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11. Got a job, yet? Good. Try and join your trade union, technicians and artistes. That's beaten you. Page 8 says there aren't any. Our artisan friends are the only people with such organisations and then there's a "perhaps" attached to it.

12. Mr. Hunnrey is also a prophet. Page 95 says: "We may safely assume that the news-reels of the near future will be in colour." A production news-reel chief has different views. But that, of course, was only an article in the last issue of the "Cine-Technician."

13. There's a lovely appendix. So helpful. Lists of this, that, and the other studios, some with their West End offices, some with their studio addresses; a list of seven directors (and one's a producer, anyway); four agencies (what have the others done?); and a charming list of useful organisations. A.C.T's. in that. But don't try and call on us, because on page 101 we are still at our old address!

P.S.—Dear publisher, how close was "nearly thirty years' close connexion with the film industry, both in the field and the studio"? (page 5). And what sort of field was it, anyway?

E. & O. E.

RECIPE FOR THE FUTURE

"BEHIND THE SCREEN" Edited by Stephen Watts. Arthur Barker Ltd. 8/6 net.

This is an M.G.M. all-star production. With Hugh Walpole to introduce us, we are given a survey of motion-picture production by a team including Hunt Stromberg, George Cukor, Frances Marion, Cedric Gibbons, Douglas Shearer, Lee Garmes, Adrian, Natalie Kalmus, Lionel Barrymore, and Leslie Howard, to mention only the better-known names. Various other M.G.M. department heads contribute brisk and efficient support as called upon.

The whole production moves slickly. It disarms by explicitly appealing neither to the technical expert nor to the rabid fan of particular stars, but to the "great mass of normal people, whose decisions, probably casually taken, to go to see a given film or to stay away, decide its fate as a venture in production." It's a Hollywood product, just as "A Yank at Oxford," M.G.M's. first "British" film was, and with whose release, by the way, it is nicely and coincidentally timed. And it consequently presents a good idea of the strength and weaknesses of Hollywood.

On anything dealing with administration, with the vast organisational job of the M.G.M. studio, with the rationalised routines of the motion picture crafts, the book could be well taken as a text by British studios and technicians. *Stromberg*: "A director who does not see eye to eye with his producer about the way a film is to be made, cannot make a good picture . . . The essence of production is time . . . the trial-and-error method of picture-making is suicidal in a modern studio"—a good motto for a few companies I could name (if they're still interested in film production). *George Cukor*: "(The director) must exist throughout the making of the picture in a curious elastic, yet firm, state of mind . . . the art of the director is to hold the delicate balance between giving something to, and taking something from, the people he works with." *Cedric Gibbons*: ". . . it was decided to make unusual settings completely in miniature first. The idea was ridiculed, but . . . . the amount of money that this simple procedure has saved the studio in material, labour costs and production time, is astounding." *Jack Dawn*: "The human face must to some extent be a 'canvas' for the make-up artist, but he must never forget that it *is* a human face." *Lee Garmes*: "I have asked to be withdrawn from pictures in production simply because my work was, frankly, terrible . . . A photographer can be miscast just as surely as actor or director."

But as to what all this energy, efficiency and skilled craftsmanship are about, the book is less helpful. Of course, it has an answer. To make money by finding out what the public wants and then giving it to them. The best and most candid exponent of this is Frances Marion, successful scenarist of such pictures as "Min and Bill," "Dinner at Eight" and "Camille." "Plot," she says, "is secondary in importance to characters . . . a character fascinates when he presents the qualities that the members of the typical audience would like to possess in themselves . . . it is imperative that he be likeable and that he have certain long-approved traits . . . regarded as admirable by long generations of mankind . . the scenario writer stresses motivation—that is, he makes clear a character's reason for doing whatever he does that is important" (though here I would differ, if I dare, and suggest that the strength and, above all, speed of the good American film lies precisely in that it is not too pedantically motivated, just as the weakness of the average British film is that in motivating its characters it tries to answer too many of the sort of questions that would be asked by a dull but persistent twelve-year-old schoolboy). There is, in all this, no nonsense about "Art." Miss Marion has discovered certain rules for supplying a commercial product—and supplies it, to her own profit and the undoubted pleasure of millions.

Others in the book, however, betray a less easy feeling. Leslie Howard, notably, whose disquiet takes the form of a well argued plea that "the talking picture, as at present known, is not a medium for the actor's art at all." He grumbles that "the experienced screen-writer . . . has learnt to exclude original ideas from his work"—an accusation conveniently confirmed by Miss Marion when she declares—"The amateur, as a rule, strives for new and widely different plots, but the professional writer sticks to those old plot patterns that for many years have proved to be satisfying to the public." With the instances of the successful starring of Sonja Henie, Walter Winchell, Ben Bernie, and the Dionne Quintuplets to support him, Howard finally comes to the conclusion that "the greatest and best controlled star of all is Mr. Micky Mouse, closely followed by his colleague Donald Duck, Popeye the Sailor, and all the host of talented performers who put none of the complications of corporal existence in the way of the picture-makers (the real artists of the medium) who manipulate them."

This conclusion nearly leads him to the discovery of the chief thing that is wrong with the cinema, the fact that, as Natalie Kalmus says, "Motion pictures have been steadily tending toward more complete realism." In one sense of realism, I would have no quarrel with that, the sense in which Hollywood is producing films like "Dead End," "They Won't Forget," "Black Legion," "Fury"

—in which *real* problems are dealt with affecting people whose counterparts *really* exist beyond the studio walls. But that is not what Mrs. Kalmus means by realism. She means technically more perfect reproduction of colour, of sound, of stereoscopic perspective—the increasingly exact mimicry of the actual *physical* world by the manufactured world of the screen. And that's what's wrong. Because you can have that sort of realism and yet not touch fundamentally the human mind and its problems or the human society and its problems at all. Perhaps Howard was feeling something of this.

Or Lee Garmes, for his chapter is quite alive to the futility of this purely reproductive reality. He recalls how for the courtroom scene in "Crime Without Passion," no entire courtroom set was built but "instead we had a series of small sections, each created with the deliberate aim of making them photographically interesting . . . I photographed this non-existent courtroom, thinking all the time in terms of the cutting-room . . . ." Again, in the restaurant scene in the same film, "the normal procedure" (*for 'normal' read 'realistic'*) "might have diffused our dramatic interest . . . .So we built one small section with one table and photographed it in such a way that it seemed part of a restaurant and yet somehow isolated, just as all that we and the audience cared about in that restaurant was isolated from the rest of it." That sort of approach is cinematic; and we need more of it, even to the point of bringing back some of the tricks of the cinema that were frankly fantastic and whose only inheritors are Mickey and Donald and Popeye.

And there's the recipe for the future. Fantasy reintroduced into the form, and human and social truth into the content—it sounds too good to be true.

Which it probably is.

SIDNEY COLE

A LIST OF BOOKS ON CINEMATOGRAPHY, MARCH, 1938

Compiled by the British Film Institute. 6d.

The B.F.I. has performed a much-needed service in publishing this bibliography of the cinema. The list is divided under sub-heads, and the Technical section is especially interesting for the number of titles published before the post-war boom in both production and theory of films. There are, however, some notable omissions. The Periodicals section does not contain *The Cine-Technician* or the American publication *New Theatre*; a list of defunct periodicals such as *Close-Up* and *Cinema Quarterly* would also be welcome. The History list should surely include *Upton Sinclair Presents William Fox*, and the Sociology H. A. Potamkin's pamphlet *The Eyes of the Movie*. Two works inspired by "The Cabinet of Dr. Caligari"—*The Art of the Moving Picture* (second edition 1919) by Vachel Lindsay, and Chaplin's essay in the defunct *Adelphi*—are omitted. Pudovkin's *Film Acting* is mentioned here, but—tell it not in Gath—*Film Technique* is not there.

The British Film Institute might find a study of the periodicals, year books and publications in the A.C.T. library mentioned elsewhere in this issue helpful when compiling their next bibliography.

M.A.

S.E. LONDON PHOTOGRAPHIC EXHIBITION

A record of 833 entries was submitted to the recent exhibition of the South Suburban & Catford Photograph Society. Our representative says the prints showed a pleasant variety of papers and the professionally processed colour transparencies differed but little from those processed by the entrants. The society, however, could gain much from observation of good films. There was a lack of variety and freshness in angles and approach, too high a percentage of mid and long shots. More twentieth-century impressions would have been welcome, too. Fine modern buildings like the Battersea Power Station are more worthy subjects than a Victorian "Gothic Period" church, and with the advent of high speed film and fast shutters there is no reason for so few records of the people around us, at work or at rest. Here the lantern slides scored over the prints—in composition, selection of subject, and spatial relationship. Their exhibitor was possibly influenced by the cinema.

The winner of the Silver Cup, Mr. Butcher, presented a very fine dynamic composition in his "Interior View of Bexhill Pavilion," the repetitive rhythm of receding stairs being cleverly carried on and finished by the palm tree at the foot. Mr. C. Roberts and Miss K. Flower placed their subjects admirably.

If South-East London can annually attract so many enthusiasts, let us hope that other districts and provinces will endeavour to emulate their commendable achievement.

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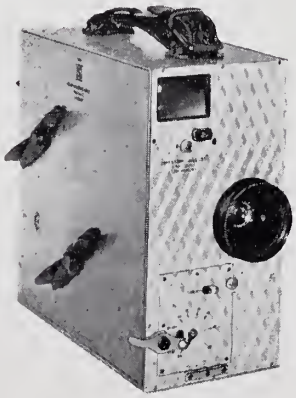

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Technical Abstracts

Super Light Sought

M.G.M. ELECTRICAL CHIEF FOLLOWS PATH OF STANFORD U. SCIENTISTS IN EXPERIMENTS WITH ULTRA POWER LIGHT SOURCES

Spots of light so intense they rival the face of the sun are the latest subjects for experiment by Hollywood's wizards of electricity. Intensive research into light higher in intensity than ever used before in any place outside a physics laboratory, is being conducted by Lou Kolb, chief electrical engineer at the Metro-Goldwyn-Mayer studios, in the hope of evolving a new light quality and speed for photography.

"High light from small points of origin," Kolb believes, "may mean intense light without a great deal of heat, thus making possible powerfully lit sets for colour photography or for super-speed photography in interiors. Fast films so used are apt to lose photographic qualities through not penetrating shadows, but with intense light, cool enough to be practical, speed plus absolute detail will be possible."

Kolb is experimenting with light sources which produce enormous amounts of light from a point of origin of very small area, such as a point hardly the size of a pinhead producing hundreds of candlepower. The studio experiments follow along the same lines as a series of research experiments that originated in the Stanford University laboratories, and recently were widely publicised.

The idea is still in an experimental stage, says Kolb, and he cannot predict yet to what extent it will be practical in studio work.

"Scenes like the great courtroom in 'Mary Antionette'," he points out, "have to be so intensely lighted that the heat becomes oppressive, and doors have to be opened and stages ventilated at frequent intervals. The same is true in the opera house set of that picture. Similar intense lighting marked the Monterey fiesta sequence in 'The Girl of the Golden West'.

"Hollywood has for years been seeking a light that would furnish actinic illumination with a minimum of heat. The idea of intense heat from small origin points should solve this question, as much of the heat generated would be dissipated in the air about the source of light, leaving comparatively cold rays where the light falls on the photographic object."

A high-intensity electric current, says Kolb, would be used, but under rigid control. Laboratory tests now are being made to determine whether the ideas developed in the University laboratory may be practically adapted for motion picture production.

—*International Photographer*

Colour of Outdoor Photographic Subjects

Abstract: Measurements have been made, on a tri-colorimeter designed for the purpose of the colour of the total light reflected into a camera lens by a number of outdoor photographic subjects. It has been found that this colour is representable on the average by a colour temperature of 4,800° K. and that none of the subjects departs markedly from this, although components of the subjects such as grass and sky are some way removed from white. The over-all colour remains the same during the whole of the day, except towards sunset when the light rapidly becomes more blue.

The Photographic Journal

Two New Agfa Films

The outstanding photographic news of the closing months of 1937 was undoubtedly the announcement by the Agfa Ansco Corporation of two new motion picture negative films, enormously faster than had hitherto been deemed possible. These two new films are respectively Agfa Supreme, with twice the speed of conventional superpan emulsions, and Agfa Ultra Speed Pan, with the amazing sensitivity of four times the speed of conventional emulsions.

Expressed in the familiar Weston speed ratings, these films have Weston daylight speeds of 48 for the Supreme and 96 for the Ultra Speed Pan. These ratings, it must be mentioned, are approximations, as the Weston engineers have not as yet published their official ratings for the new emulsions, but the ratings quoted have been used by the writer with success.

The remarkable thing about these two new emulsions is that they are in no sense products of hypersensitization, but strictly normal production coatings in every way.

Equally remarkable is the fact that the tremendous increase in speed has been attained with no sacrifice of grain size, contrast, keeping quality, or other normal characteristics in the case of the Supreme emulsion, and with only a slight alteration in grain size and contrast in the case of the yet faster Ultra Speed Pan. A radically new discovery in emulsion making technique is responsible for this.

NEW EMULSION TECHNIQUE

It is well known that the making of photographic emulsions is limited by the close inter-relation of such characteristics as speed, colour sensitivity, grain-size and graininess, contrast and stability or keeping quality.

Any advance in any of these must in general be limited by the sacrifices in other qualities permissable under the condtions of the emulsion's practical application. Thus many of the earliest panchromatic emulsions achieved their wider colour sensitivity at the cost of sacrifices in contrast and other characteristics.

Similarly, considerable increases in overall speed have long been possible under normal emulsion making methods or by hypersensitization, but only at the expense of increased grain, distorted contrast and in many instances greatly diminished stability.

Due to the new methods developed by the Agfa-Ansco engineers, however, the new emulsions afford their increased speed without, as has been said, the necessity of such sacrifices.

CHARACTERISTICS OF SUPREME

The new Agfa Supreme emulsion is intended as a general purpose emulsion for all production uses. To that end it supersedes the firm's previous Superpan emulsion, which has been withdrawn from manufacture.

—*American Cinematographer*

Camera Script Clerk

Latest innovation in camera department is the introduction of a lighting cameraman's secretary to keep track of all lighting details with a view to simplifying the lighting of re-takes and added scenes

William H. Daniels, A.S.C., director of photography during the filming of M.G.M's. "Marie Antionette," when faced with the lighting of some of the biggest sets ever built in this studio, was responsible for this piece of pioneering.

Daniels discusses treatment with associate Len Smith, A.S.C. Lighting is decided. Len gathers the electrical crew and lights set while Daniels carries on production scheduled. Lighting completed, photographic test made, result studied, modification made, second test made, shown to Art Director, Director and Producer for their approval of lighting, etc. Camera script clerk proceeds to chart the type, position, angle and roughly degree of flooding of every lamp as our illustration shows.

Other important details such as height of chandeliers in shots are recorded. If set is not being used for some time, equipment can be used elsewhere. Lighting plot is now in black and white. When ready to shoot "gaffer" sets lighting to script, putting a G–E here, two Juniors there, a string of 24's along here, with perhaps a 10 K.W. or H.I. Arc between. When the set is scheduled, it will be found to be almost perfectly lit, considerably better than being merely roughed in.

On the set the secretary keeps detailed notes of everything concerning photography, including set-up, camera-angle, lens used, in addition to keeping light tests from labs. and any other important information useful to the camera crew.

Director Van Dyke, asked for opinion of idea, replied: "It's the greatest thing ever. Now we know just where we are, and get every detail of any scene right away, without spending half a day hunting through miles of film in a projection room. What beats me though is why in 'ell didn't somebody think of it sooner!"

—*American Cinematographer*

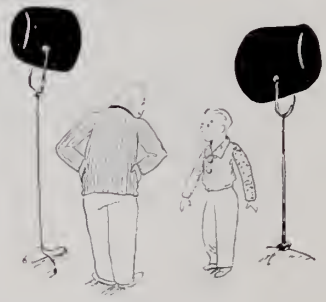
Permanent record of lighting data devised by William H. Daniels, A.S.C., at M.G.M.

SLUMMING AROUND the GLOBE PIGSWILL TEMPORARILY TAKES OVER

The Street called Straight

My revered and learned friend, one Pog, still being absent (sunning himself, I understand, somewhere on the shores of the blue Mediterranean) the Editor has called upon me to take over, fill the breach, or otherwise use up this page to the best of my ability (?). My little nest on the Sussex Downs was invaded by the local postman - cum - policeman-cum - porter, who handed me a vicious-looking envelope bearing the letters A.C.T. stamped on the flap.

Some two days later, therefore, I found myself in the shady precincts of Wardour Street in an endeavour to find the real people of the film business—the people who work if they can get it! Of course, I knew where to find 'em, and before long I was attached, as it were, to a typical representative of this great industry. It needed no great effort to wrap his hoary old hand round a glass of old and mild, and eventually I persuaded him to talk about himself (a most difficult task with anyone connected with films). He—between your tears, as it's story.



Received a peculiar "Ja."

Lessons with Mr. Berlitz.

TALE OF A LONESOME TIME

A Technician's Story

Will I tell you the tale of my life, Sir,
Well, I guess there's not much I can say,
Since the days of the Quotas and Quickies,
I ain't had so much coming my way.

But things haven't always been bad, Sir,
Why, I remember the time long ago,
(They were showing "The Birth of a Nation")
When my wage was ten guineas or so.

Ah, those sweet happy days of content, Sir,
When Englishmen littered the set,
No Vitches or Bergs on their name, Sir,
Just Smiths, Browns, or Joneses—you bet.

Mind, I'm not saying as how its ALL wrong, Sir,
'Cos if a bloke's really good at his game,
And PROVES himself better than me, Sir,
I'm the first one to give him a name.

But a job I was on months ago, Sir,
In Bucks, if my memory's right,
When I walked on the set in the morning,
I saw an astonishing sight.

Technicians were there by the score, Sir,
A truly remarkable clan,
But when they gave me a sound like a raspberry,
That's how all the trouble began.

Well it wasn't as bad as all that, Sir,
You see, being new to the place,
I hadn't got used to their language,
And they hadn't got used to my face.

It was certainly trying at first, Sir,
After saying "PARLEZ VOUS?" to the Star,
To address an important Director,
And receive a peculiar "JA."

To be so lonely is not very nice, Sir,
But in future I think I'll do this,
Take a course with our friend Mr. Hugo,
Or study with Mr. Berlitz.

I'm afraid that's the lot for to-day, Sir,
Can I tell you no more?—ah alas!
What's that?—do I still feel a little bit thirsty?
Well I never say No—mine's a Bass.

That's the lot for to-day. So now you both know, dear readers, the true state of affairs. I go back to my down and birds. You back to the Public Assistance Committee. Good luck to thee.

Thine,

PIGSWILL

Eyemo camera – "the backbone of newsreel work!"

This is what prominent executives and ace cameramen of "Pathe News" say of the Eyemo Camera. One of them goes on to say: "My Eyemo Camera is an indispensable part of my equipment. It's small size makes it easy to hide, enabling me to take it into places where the taking of motion pictures is frowned upon. The uses of the Eyemo are unlimited."

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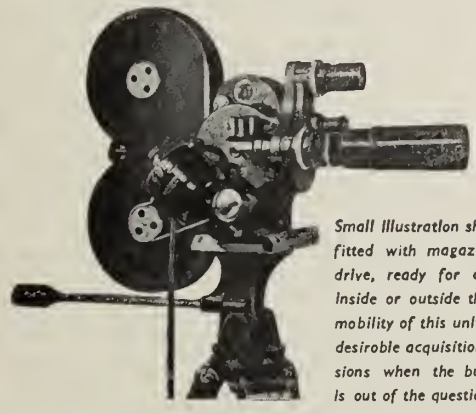

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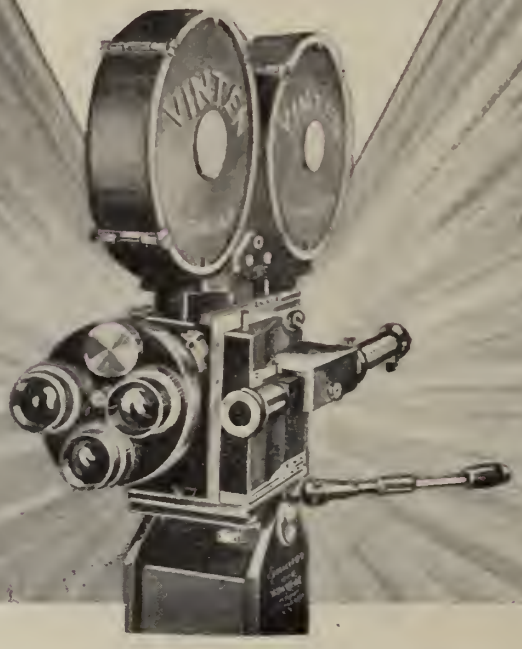

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LEIGH AMAN
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GEORGE H. ELVIN
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PIGSWILL
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COLOURED SHADOWS

FILMING AT THE ZOO

A SCRIBBLE ON US FILM-SCRIBBLERS

LESLIE HOWARD ON ACTING FOR THE SCREEN

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LESLIE HOWARD

on

Acting for the Screen

The following article is based on our representative's interview with Mr. Howard on a recent pleasant but hot summer's day when a thousand and one different topics were discussed.

THE success or failure of the screen actor depends on whether he does or does not appreciate that the movie is not a good medium for "acting," as that word is understood on the stage. It is not a creative outlet for the player to anything like the extent of its older rival, and it is quite a mistake to say that the technique of the one derives from the other. While there are a few examples of artists who have been successful in both media, that is because they have conformed to the stage methods on the stage, and completely ignored those methods and adopted others in front of the cameras. This great difference is noticeable by the way in which the two different forms produce a similar emotional response in the audience—but by entirely different means. It is quite possible for a play to be performed with the actors sitting in armchairs throughout, and for such a play to be emotionally satisfying, but can you imagine more than a few hundred feet of such a thing being anything but an unutterable bore on the screen? The kernel of the difference was expressed some years ago by Jacques Feyder, the French director, in the words: "On the stage the dialogue *creates* the situation, on the screen the dialogue *arises out of* or is corollary to the situation which has been created by action." Dialogue, purely as such, is not necessary to the movie, because the movie is not a literary expression.

Consider the proximity of the West End stage to the London Studios. Then remember that Hollywood is 3,000 miles away from Broadway. Hollywood may use stage actors, but it moulds them to its own purpose. Many English actors merely condescend to appear on the screen, and the condescension is obvious on every frame. They bring (and this applies particularly to the younger generation) the West End tradition of good manners to such an extent that they are better mannered than any well bred person ever ought to be. Or, in lower-class parts, they swing to the opposite extreme so that, for example, their Cockneys are neither good Cockneys nor even good caricatures. The same misfortune applies to the average British producer, scenarist and director—they are dominated by the stage. Hollywood respect the stage, but treats it at best as only on an equal footing. The British director does not seem to have the same quick perception on the set of the *movie* faults of his artists, or, if he does, he seems to be less able to correct them. The British producer and scenarist are content to photograph a stage play; in America the play is adapted to the vastly different demands of the movie medium. In adapting a novel to play form, you would not have simply a narrator appear on the stage and read several selected portions of the novel. Yet that is analogous to the method of screen adaptations in this country. Why make a good or a big-name play into a poor movie? You only throw away the goodness of the play, and the big name of the playwright becomes valueless, even as publicity.

It is possible that the secret of Hollywood's success lies in the fact that the cinema is pre-eminently America's method of self-expression. She has no monopoly of screen methods, and it is open to other countries to copy her if they wish. But slavish copies are notorious failures. They lack the spontaneity and zest of original creation. Think of the different ways in which France, Germany and Russia have developed their own movie-technique, our only analogy here being those often-times excellent little documentaries. In most of them the acting as such is amateurish and camera-shy, but every now and then one is conscious of a ravishing gem of realism or near-realism.

a spontaneous reaction which is just right for the movie, or, in the words of John Grierson, an action that time has worn smooth. From this origin may eventually spring England's special contribution to the commercial cinema, as I am sure that, despite the handicap of stage tradition which hedges it around to-day, a real "movie" method which is recognisably English can be developed by English technicians.

The American cinema is a growth of American consciousness. It is not international. The fact that Hollywood is full of European names is merely symptomatic of the absorption of other nationals by America as a whole, a facet of America's history in the making. It is not a proof that you must *have other nationals to make good pictures. The films themselves are 100% American.*

England can do the same as America has done. Already it is true to say that her technical staff is as advanced in movie methods as Hollywood, and its artists could easily become so. Why, Hollywood itself is crawful of English people who have very quickly absorbed the traditions of movie acting and who have been enormously successful. They have been "themselves" on the screen rather than consciously acting a part, which leads to the well-worn cliché that the problem of good film acting is one of good casting. To the producer who has to think of his budget it is obviously safer to use an artist who has proved successful in a certain rôle, and who is certain to be equally successful again in the same rôle, than to run to costly experiments and try out someone who may be a flop. Two danger points should be noted in this connection—over-acting and under-acting. I saw an English picture recently in which the latter technique was employed to give an impression of realism, but it was such exaggerated under-acting that the result was dull and boring. Over-acting in itself is not quite so dangerous. And, in the purely movie sense, it is only a flamboyant type of expression which is actually native to the movie, and does not, as many people imagine, derive from the stage. The Barrymores are a case in point, particularly John, who on the stage was never a character actor but always played straight parts.

Anthony Asquith, A.C.T. President, directing Leslie Howard and Wendy Hiller.

The lack of any very long-established tradition, and the fact that films tend to favour type casting, has many advantages. Primarily it gives to American pictures a feeling of sincerity in the players that you rarely get elsewhere, except, as I have said, in rare moments in English documentaries. The English film is a set piece consciously acted, the American is an hour and a half of realism and drama accidentally caught by a camera. And, although the basis of the story may not bear inspection two minutes after it is over, at least during the time it is running you have the impression that you are seeing real people in a real setting.

Nor can one ignore the background of many of the actors and executives themselves. Most of the latter are men of quite humble, even East Side, origins, with little or no pretensions to education as such. Maybe just for that reason they are more on the common level of the man who sees the films, and in so much the better position to assess the common level of mass appreciation. Similarly with the artists. Most of them are the common man's idea of what such characters should be, and if Joan Crawford plays the part of a real lady it is the housemaid's or the shop assistant's conception of the lady she herself would be in such circumstances, while it is possible that an English interpretation of the same part might be truer to actual life, but give an impression of the ultra-refined lady that she would certainly *not* like to be.

I do not mean by this that every part should be played only on a moronic conception of it, that technique should never try to be intentionally highbrow, or that dialogue previously mentioned should be eliminated. On the contrary, I am all for every advancement in technique that can be brought to the assistance of the film medium. Take the question of, say, the stage soliloquy, with which I am very anxious to experiment on the screen. I believe it is possible to go still further with the spoken thought idea even than "Strange Interval." I would like to tackle one of Shakespeare's characters in this manner, particularly one of the characters much given to the habit of soliloquising such as Hamlet or Macbeth. It is my firm conviction that even greater significance could be given to the psychological working of their minds by genuine movie methods than is possible on the stage. For example, take the scene in Macbeth where, right at the height of the drama, it is announced to Macbeth that "The queen, my lord, is dead." Macbeth replies:—

She should have died hereafter.
There would have been a time for such a word.
To-morrow and to-morrow and to-morrow
Creeps in this petty pace from day to day,
To the last syllable of recorded time.
And all our yesterdays have lighted fools
The way to dusty death. Out, out, brief candle;
Life's but a walking shadow, a poor player
That struts and frets his hour upon the stage
And then is heard no more; it is a tale
Told by an idiot, full of sound and fury
Signifying nothing.

(Continued at foot of next page)

A SCRIBBLE ON US FILM-SCRIBBLERS

By IAN DALRYMPLE

ONCE upon a time there was a British film that was highly praised by the Press: and for once the Press was right. Now, the praise was allocated to the Director of the film and he was generally hailed as a "coming young man," though he isn't exactly a boy and had been going in various capacities for more than somewhat.

Anyway, all this adulation of someone else went to the head of a certain charming and talented screen-writer, who promptly took up his typewriter and wrote a letter to the *Daily Intelligentsia*, couched in well-chosen phrases of refined pain, and pointing out that the Director couldn't help having made a film of merit, because himself and his colleagues had written such a magnificent script. The writer felt strongly that the authors were much eominger young men than the Director and should have been awarded the ballyhoo. Well, maybe they are: what of it? In my view, again the Press was right.

Even in the British film industry (I use the epithet loosely, to deseribe the adventures in Motion Picnics that happen to be eonducted in the United Kingdom) there are film executives, or, shall we say, there is, we understand, one film exeeutive, who realises that a good script eannot *gravely incommode*, at least, the making of a good film. I have to say, as a loyal member of my profession, that I am in agreement with this: but I claim with equal conviction that the script *writer* is of no consequence whatever.

The Producer is the creative artist of a film: or sometimes the Director: or, more rarely, the Cameraman: conceivably, the Cutter: but never the Writer. If a script-writer were a creative artist, he shouldn't be writing scripts: because, a good script-writer is nothing more nor less, and should be nothing more nor less, to the Producer and Director than the indispensable Bunter is to that great artist of elucidation, Lord Wimsey. Creatively, the script-writer is the perfect servant: but if a perfect servant starts writing to the Press, protesting, for instance, that the paragraph allotted to his master in Mr. God-with-the-Wimnd's page should rightly have dealt with himself. then decency is indeed gone from the world and the servant of perfection is bogus.

If a script-writer fancies himself as a eosmic force, as a ereative artist, as a phenomenon to set the critics capering, then I repeat that he shouldn't be writing scripts. He should let go of Mama Film Industry's skirts and recite his piece all by himself in the middle of the room, where the audience ean shy the furniture at him. Let him write a novel or a play, or serve up a whoreson stylish whimsy-whamsy dish of Lamb *rechauffé* for the *Weekly Bumptious*: or even tangle together a few strings of those pathological sausages that pass for poems in these days: and let him leave the eoncoction of screen-material to us little, obscure, gag-situation-bright-line merehants. who have the faee to call ourselves writers and make ourselves members of the Ineorporated Society of Whatnots, Whatnots and Whatnots.

Putting it at its highest, the motion picture is a method of presenting the dramatic eonceptions of the fanciful before the widest attainable audience. It is simply a method of staging, created by and suitable to modern urban eivilisation. A play may be staged that is a work of art: the staging may be artistic: but the staging-of-the-play is not a work of art. A play or book may be filmed that is a work of art: the film may have its artistie aspects: but it isn't in itself a work of art. At any rate, the script certainly isn't: being a bundle of extensive notes for a eomposition in celluloid. Therefore, the script-writer isn't an artist, he's just a skilled artisan: and the artisan may be the salt of the modern earth, but he's by no means the vital foree that sets it spinning.

Examine the script-writer's duties, and, in this connection, we needn't trouble ourselves with the "Original," as being so unusual as to be manna from heaven rather than daily bread from the baker. He is handed a book or a play. He reads it and assesses its film-values according to his opinion, probably planning a line of attack as he drops off to sleep that night, or fights the daily duel with himself in the morning with razor for one and iodine for a hundred. He keeps an appointment with the Producer who, in due course, renders his own idea of the treatment in the form of a coneerto with an accompanying orchestra of interruptors, human and electrical. In a brisk opening passage, the solo performer shatters the writer's enthusiastie eonception to fragments: the orchestra intervenes with a magnifieent contrapuntal passage, during which the writer attempts to reassemble the fragments, play the man, and turn the subsequent performanee into a double-concerto. But it won't do at all: the result is a bedlam of discords.

No, no: we must change our metaphor and the script-writer his attitude. Not only must he interpret the intention of the novelist or dramatist in the language of the films: he must translate that intention after its ex-

(*Continued on page 37*)

ACTING FOR THE SCREEN

(*continued from previous page*)

In this speech his whole spoken reply to the announcement is really contained in the first two lines, the rest only shows that the total effeet of hearing of Lady Macbeth's death is to produce from him a dissertation on the fickleness of life. My conception of this seene would be to have the first two lines actually spoken by Macbeth in fairly elose shot, then cut baek to a big long shot showing the actor in a large hall, and as he goes out the voice would be heard but the lips would be closed. Maebeth by his actions would *show* what he was thinking, and that is the main funetion of movie—to be a visual medium.

When all is said and done, the part of the movie that interests me most is the only part that is really creative, that of the producer, or better still the produeer-director in one. The stage artist ean be creative, but screen aeting is mainly utilitarian. It is the accumulation of all the little bits of realism or apparent realism put together in the most significant order that makes the movie what it it. Next to the producer, the eutter is the most important "artist" in the creation of a film and it is to these two people that we must look for the development of the appeal of the film. Universality of appeal may not in itself be a virtue, but it remains an enormous commercial asset.

(Stills accompanying this arlicle by Eugene Pizey from the Pascal production, "Pygmalion.")

From "The King's Breakfast," a recent Reiniger film.

COLOURED SHADOWS

by

LOTTE REINIGER

Lotte Reiniger's name is practically synonymous with the silhouette film. She has made twenty-five of them and many have been shown by The Film Society. She designs all her own backgrounds and figures, cuts them out, joints them, manipulates them, photographs them, and assembles the completed film. She is also one of the most charming people we have ever met.—Editors.

AS my technique is very simple, there is very little to say about it, but it may be of some interest to talk about the artistic reasons which made me take up silhouettes.

I am deeply convinced that the art of film is an art of movement, and as far as I can remember all the great successes were those films in which this quality of movement came out at its best, whether there was a great artist moving himself through the picture in a surprising way, like Chaplin, or whether the screen motion was obtained by a powerful use of montage, as in the Russian films, or whether the movements of nature were observed and transferred truthfully and convincingly to the screen, as in the great documentaries, or whether the artificial process of making drawings dance and move was developed by an artist to a striking rhythm of his own, such as Walt Disney.

It has always been this fantastic possibility of creating a new motion which has given me the greatest pleasure in my work. I first wanted intensely to become an actress, but I found I was far more gifted at cutting silhouettes with scissors! This period was a peak one for fantastic experiment in Germany. Due to inflation, money was worth nothing, and the commercial people were occasionally ready to give an artist a chance, since the cash lost its value each day anyhow. So I joined a group of artists, and together we made all sorts of experiments for trick films. They persuaded me to put my silhouettes, which by this time had achieved a small fame for their expressiveness, on the screen in the same way as a designer would produce his drawings.

I constructed very articulated little figures, cut out of cardboard and lead, laid them out on a glass table, lit them from underneath, and photographed them from above, altering their position frame by frame. The backgrounds for these small actors were of transparent paper, also cut out with scissors, so that they had their own worlds, all linked by the same style.

In the days of silent films I always looked for a suitable story first, usually a fantastic one, which could be told in a straightforward way, and amused myself in adorning it with movement, more elaborate decors, light effects and all sorts of experiments for background motion. My most violent outburst in that direction was a full-length silhouette film on the Arabian Nights—"The Adventures of Prince Achmed"—made in 1923–26. For this film I collaborated with the best German trick film artists, Walter Ruttman and Berthold Bartosch. A musical score was written before the production was finished, and various of the scenes played to fit the score.

As these films were almost a one man job, they were cheap to produce and I could work happily in my own way.

With the arrival of sound the problem became more severe, as costs were increasing and the films had to make more money to be worth doing. The style had to be altered too. Where I formerly looked for a story, I now look for music. Where I formerly thought of funny hap-

Reverse side of silhouette figure ("Aladdin") used in "Prince Achmed," showing detailed articulation of the joints.

penings. I now think of movements, more as a ballet master thinks in arranging his dances. And now, just as, after a couple of years of hard work, I seem to have achieved a good control of that technique, the surprising ways of film production have prepared another change for me, the arrival of colour. And I am beginning to experiment once again. I can't say much about the results; they will, I hope, appear in my first colour film, which I am doing soon.

What I am after is to invent, as I did for the silhouettes with a transparent background, a background of coloured light. For the first film my figures will be partly silhouettes, partly luminous white ones, played against a very simple scheme of colours. To my surprise, I find that colour adds a certain plasticity to the figures, so that their movement needs a quite different approach. Also the construction of the figures, as they will be transparent, has to be worked out anew. Although this all means much more work, the more I proceed the more delighted I am with the possiblities I see in this new medium.

I received most of my inspiration for this work from watching the Greek shadow theatres. In Greece, the shadow theatre is a popular entertainment, even considered to be "low." They play with coloured figures, cut out of parchment, and in the exciting movements of the play they underline their climax with magnesium lights—red light for the happy ending, green light for eerie events—and these are the moments where the audience bursts into applause.

US FILM SCRIBBLERS

(*Continued from page* 35)

pression in the *argot* of the producer. He should conscientiously retain as much of the characterisation, as many of the situations, as fair a condensation of the dialogue of the original author's, as is feasible: but, and this is the most difficult task of all, he must know not only what to omit, but to re-draw what absolutely and again conscientiously can be better expressed by other scenes, other incidents, other situations, other characters, different lines—and, in the process, produce a fair and accurate, and probably infinitely more effective, interpretation of the author's intention than the man's own original. He must do all this and yet make it conform with the Producer's showman's-vision of the subject.

Please himself, if he can: certainly he must satisfy the Producer. That achieved, and a warm emotion of mutual understanding and even friendship and regard having been generated, all blows sky-high with the appointment of the Director, who sees everything some other way, and must have it so, and rightly, for *he alone really sees it as others will see it.* For a script may be brilliant and provocative of brilliance in others: but, in itself, it will be meaningless. A writer may visualise every movement of every scene in his mind: but create it he cannot without possessing the peculiar gifts of the Director. We have seen what "brilliant" writers make of their own "brilliant" scripts when they have snatched the Director's chair for themselves. No, it is the Director who "makes" the screen-writer, not the reverse: and the "writer" should recognise that fact and learn humility.

So, let us get the function and competence of the script-writer straight. He interprets, he translates, he solves problems, has a neat idea once in a while, writes in any style to order, thinks out gags, gets the last ounce

(*Continued at foot of next column*)

LESS HOURS—MORE QUALITY

INTERESTING comments on the effects of the new labour laws and the fluctuating rates of exchange on French film production are given by M. Pierre Autré in "La Cinématographie Française."

The higher cost of living and the application of the new labour regulations, including a 40-hour week in the studio, has resulted in the cost of production rising by about 40%. The average cost of a French film now approaches 2½ to 3 million francs (approximately £14,000 to £17,000). These prices are still below the cost of the majority of American and British productions, but M. Autré points out that in view of the limited market the financing of French films is not easy. The position is further aggravated by the difficulties in Central Europe as regards the exporting of money, quota, and film regulations generally. The best markets for French films are South America, Scandinavia, Holland and the Balkan countries, besides French-speaking countries such as Belgium, Switzerland and Canada. Only recently have English speaking territories such as U.S.A., Great Britain and the Dominions begun to receive many of the best French films.

Another difficulty experienced by French production is the supply of capital. About one-third of the 1937 production was backed by British capital, but the difficulties of exchange rates makes continuance of such methods impossible. French producers who have received pounds sterling from London banks at the rate of 110 francs to the £1 have now to repay their loans at the rate of 160 francs to the £1. An extra charge of 50% on the cost of production. (*Maybe the money earned by British financiers in this way has been one of the contributing factors to the increasing difficulties of financing British film production.—Editor*).

In view of these difficulties, French producers have not dared to launch such a large number of big productions as last year, and it seems likely that French production for 1938 will not exceed 75 films, as compared with 120 in 1937. But it is difficult to make definite forecasts. Everything depends upon the development of events in France and Europe generally. M. Autré stresses, however, that irrespective of the quantity of production **the improved quality will continue.**

We have already pointed out in previous issues the improvements in French production since the introduction of increased wages, a 40-hour week, other economic improvements for technicians and workers. **While these regulations continue in force still further improvements can be looked for.**

US FILM SCRIBBLERS

(*continued from previous column*)

from a situation, quickly readjusts himself to new conceptions, sees with the eyes of others, is a dramatic midwife, but *does not himself conceive nor create,* in the pure sense. If he can do all this, he's a clevah fellah: and gets the money and the trade-credit he deserves. But eulogies in the public press? Recognition of his technical mastery and keen mind in the public forum? Certainly not, he doesn't deserve it. His work is a personal matter and the only satisfaction he merits is that he earns his bread and has done the job expected of him.

Let us, then, have no more letters to the Press. Friends and colleagues, I pray you, let us be "not forward, but modest as the dove: . . . not hot, but temperate as the morn."

LEIGH AMAN

Out Of Leo's Den . . . On His Ear

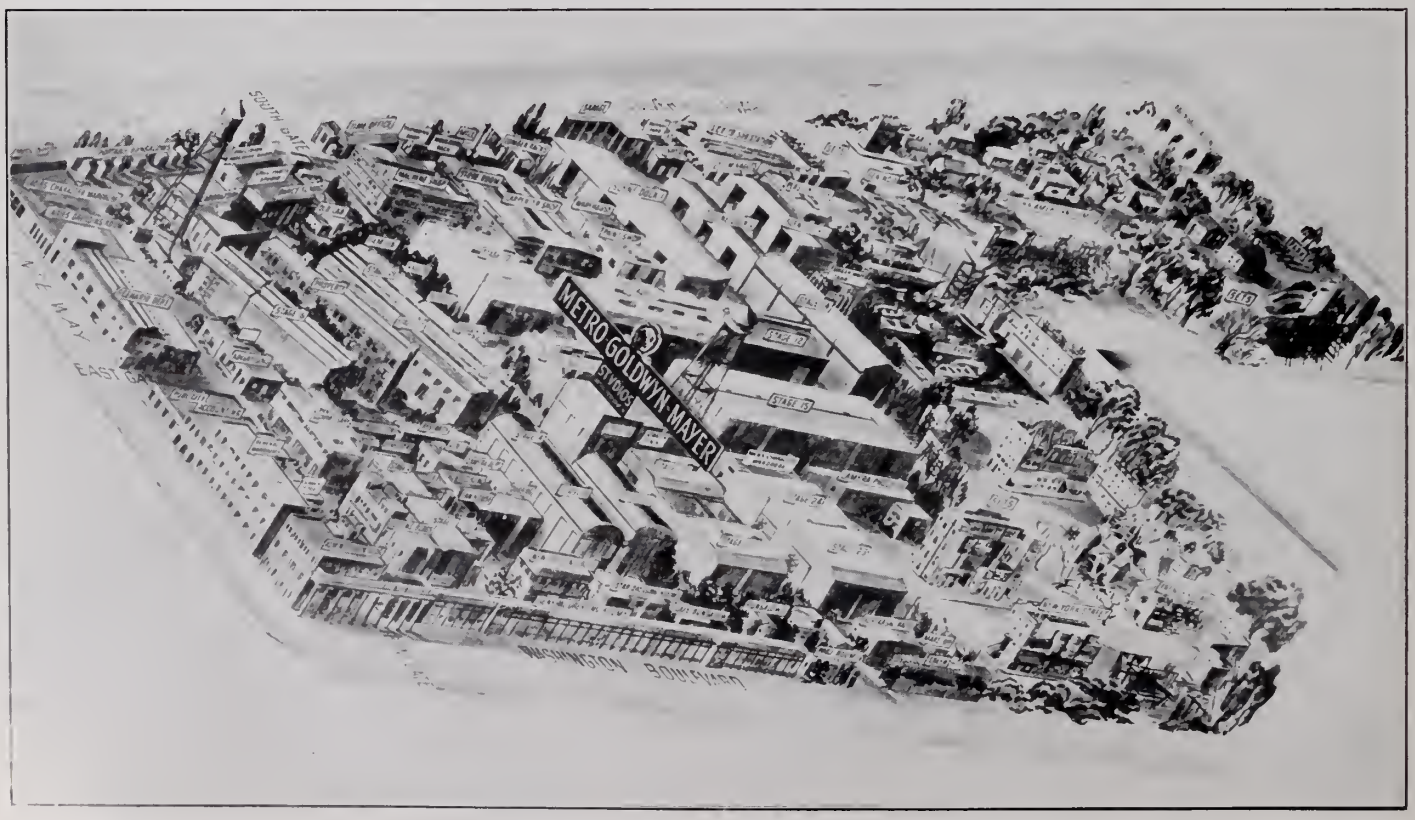
THE Lion foared furiously and then leapt . . . our hero felt a sharp blow . . . and found himself in the daylight again, out of the sombre depths of Leo's Den . . . Returning hastily to England, he lived happily ever after.

But perhaps I exaggerate a little—it's not really as bad as that, though there is somewhat of a depression on in the American picture business. During the months of February and March one major studio relieved itself of 1,500 of its employees. We were told that this was purely a seasonal layoff and that we would be working again in two or three months. But there was a different story circulating which sounded almost absurd enough to be true. In Hollywood, as in England, the "friends and relations" racket is practiced to a very large extent—so large in fact that there are frequently waiting lists of more than 500 all, of course, relations and friends of equally important producers. Jobs must be found—but how? Obviously the producers and executives could not fire themselves—so all the second assistants, office boys, secretaries, assistant cutters, etc., have to go. Thus the so-called seasonal layoff is a permanent loss of job and the vacancies are easily filled. As long as they remain in work for about a year their friends are usually satisfied, and so it goes on—a vicious circle. In England it isn't quite such an organised racket yet, but they will soon get wise to it.

Coming back to England—"from depression to depression" as it were, seems to suggest some kind of comparison between the two industries. We must remember first that Hollywood's idea of a depression is having only 20 pictures in production at one time, which was about the lowest reached. And anyway, there is so much money around that it is sometimes difficult to distinguish between a depression and a boom!

One thing I noticed in Hollywood production was their lack of documentaries. As far as I could ascertain, only one documentary with government backing has been made—"The River"—a film dealing with the Mississipi, and that was made in Washington—not Hollywood. Our own G.P.O. film unit seems to be far ahead in this line.

Technical equipment is worth discussing. Our equipment is modern and up to date, but we have not a large enough quantity or variety. One advantage of all Hollywood set equipment is its silence in operation—a point I am sure the recordist will appreciate. Wind machines, for instance, which are kept running throughout nearly all exteriors in the studio, are completely silent. Usually the actual machine is tucked away in a corner of the stage and the air current is carried through a large canvas tube to wherever it is required. The tube is about two feet in diameter and is easily movable without touching the machine. Other useful machines which I have not seen over here are treadmills used for back projection shots of people walking; and wheel machines—a series of eight rollers in pairs for keeping the wheels of carts and carriages at an equal and constant speed, also in back projection shots. These also are silent.

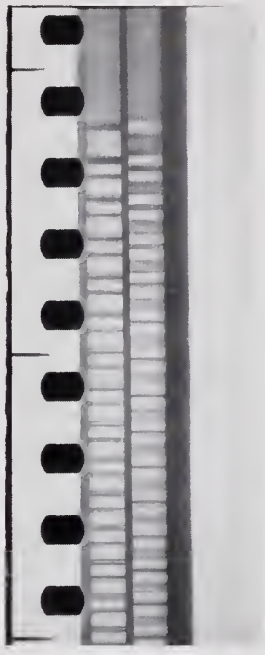


M.G.M. Studios, Hollywood.

Some of the process shots in "Test Pilot" are interesting. For the sequence, towards the beginning, of the racing plane crossing mountains in a snow storm, a machine was built suspending the plane and enabling it to turn and twist in every direction. Behind was the back projection screen. Underneath the plane, a powerful blow-torch for the exhaust. Three large aeroplane-propellor wind machines and two machines which chopped up great blocks of ice and fed them at enormous pressure through hoses as snow. Then the camera mounted on a mobile lift tower kept continually in motion with steam jets just in front of the lens for cloud effects. Incidentally this scene was shot silent. Another interesting sequence was the race in which miniatures were combined with full size planes. First the background shot on the actual location. This was back projected behind two miniature planes on wires complete with torch batteries to revolve propellers. This entire shot was processed and again used as back projection for the full size plane, thus getting the required proportions.

A point of interest to sound departments may be the method adopted by M.G.M. (and I think only M.G.M.) On the sound film is recorded two separate single width tracks one negative to the other—the two taking up less than half the width of the film (see illustration). When these tracks are finally printed as one, any blemish which may have occurred on one side is eliminated by the photographic opposite. When a reel of film has been recorded, it is turned round and the other side used. In processing, it is split down the centre, forming two 17½ m.m. strips. Thus an economy in film is achieved as well as doubly efficient recording.

Now, regarding expenditure. Hollywood of course is primarily concerned with making money, in spite of what they publish to the contrary. True, some producers are trying to make 2,000,000 dollar productions that are financially successful, but so far few have succeeded. After a great deal of experiment, most of the major studios have discovered that "B" pictures—that is pictures without a



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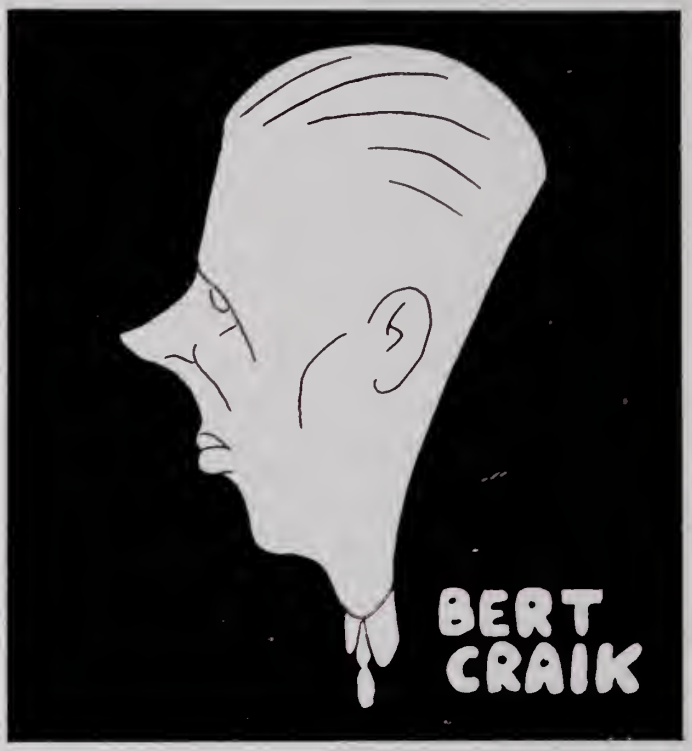
DUPLICATE NEGATIVES IN MOTION PICTURE PRODUCTION *by*



MANY more duplicate negatives are being used in film production than heretofore. This is mainly due to the larger number of optical effects and library shots which go to make up a full length picture. In addition, complete dupe. negs. are made from many full length features and shorts, and used by foreign countries to print off their own release copies. Because of this demand many duplicating emulsions are being placed on the market to cope with this specialised work.

It is not my object to comment on the various qualifications of the different manufacturers' duplicating emulsions. It is sufficient to state that great advancement has been made during the past few years in the manufacture of these. Consequently, there seems little chance of further outstanding improvement until such time as the intermediate process of making a master positive has been eliminated. This would mean that duplicate negatives could be produced direct from originals by reversal, with a definite gain in quality and a reduction in the margin of error due to the intermediate process. Experiments have already been conducted along these lines in still photography, but the speed of the emulsion used is much too slow at the moment to make it practical for motion picture work.

Graininess and its Relation to Duplicate Negatives

On the following factors depend the graininess of the duplicate negative:—

1.—The amount of grain present in the original negative.
2.—The quality of the duplicating emulsions used.
3.—The composition of the developer.
4.—The time of development.

Present-day original negatives are very free from grain, except in the case of scenes with a large area of delum density, and lacking in detail, such as sky and misty scenes.

Graininess is caused by the silver halides in the emulsion layer clumping together as they turn into metallic silver during development. It is these grain *clumps* which we see on the screen. The faster the speed of an emulsion, the more silver is used in its composition, and the thicker the emulsion layer, consequently the coarser the grain. The thinner the emulsion layer, the finer the grain, and the better the resolving power (ability to render fine detail), since the light does not have to penetrate so far and therefore is prevented from "spreading" due to the semi-opacity of the emulsion itself. Because of the special advantages of slow emulsions, the loss of speed, provided it is within reason, is no serious drawback in duplicate negative processing.

The *type of developer* used also plays an important part in the quality and amount of grain in the duplicate negative. There are numerous fine grain developing formulae available, but practical experience has proved that metol-hydroquinone-borax developers similar to the Kodak D76 are best, in that they do not lower the effective emulsion speed.

Time of development also governs the size of the grain clumps. We all know that as development increases, so also does the contrast of the developed image. This is because those parts of the emulsion which have received sufficient exposure continue developing, whilst those that haven't will go so far and no further; consequently, the degree of density between the highlights and shadows increases with development. Now in order that density may increase, the silver grains clump together more and

OUT OF LEO'S DEN

(Continued from previous page)

top rank star, or director, are sometimes very useful standbys and money makers—*as long as they have good stories.* It may easily happen that an "A" picture with one or more stars may turn out not so good. With its average £200,000 budget, this is liable to cause a serious loss. So Daryll Zanuck, one of the cleverest "business producers" evolved the "series" pictures—now being copied by other studios. These pictures usually concern a family or character—the "Jones Family," "Charlie Chan," etc., and may cost as little as £50,000, though they usually run at about £80,000! It will be seen that there is an economy in sets. The sets comprising the family's house are left standing permanently and not even re-vamping is necessary.

With these words, I must beg to excuse myself, as I seem to be in danger of falling between two lions! I hope I have not seemed too enthusiastic about Hollywood. Boiling it all down, I suppose the real reason for Hollywood's superiority is the enormous amount of money in circulation. But then, since 60 per cent of the world's gold is buried in the hills of Kentucky, what are we to do?

more as development continues, and the more they clump the coarser becomes the grain.

Sensitometric Control.

The next factor in producing good duplicate negatives is that of gradation or contrast. As a rule, the contrast existing in the original negative is aimed at, and in optical work, where the duplicate negatives are cut in with original portions of the same scene, this is absolutely essential. In fact it is even more important than fine grain, because a change in contrast is more noticeable than coarser grain.

Under modern laboratory processing conditions, sensitometric control plays an important part in this matter. By means of it one is able to keep an eye on the master positive and duplicate negative. Theoretically an overall gamma of 1 should produce a duplicate negative having a contrast identical to the original from which it was made. In practice, however, a deduction of about 10% to 15% is made to allow for printer and projection losses. The overall gamma is the product of the gammas of the master positive and the duplicate negative and there we rely on the manufacturers' instructions for guidance. For example, the Kodak Fine Grain Duplicating Positive Film should be developed to a gamma of between 1.1 and 1.3 and their Fine Grain Duplicating Negative to a gamma of between .6 and .7.

Cleanliness

If all the foregoing conditions have been observed in the production of your duplicate negatives, and that of cleanliness has been neglected, you have simply been wasting your time. The neglect of it means there will be a crop of dust and chemical spots on the master positive. These will be photographed in the duplicate negative, and more will certainly be added.

The surest way to clean results is to keep everything clean. The water supply should be filtered and a water softener used if possible. All developing and fixing baths should also be filtered. An air conditioning plant and tiled walls make an immense difference; indeed they are an essential in the modern film laboratory. A negative that is to be duplicated should be carefully cleaned with methylated spirits and run lightly through a duster, or better still through an air suction device mounted with camel hair brushes. Finally a compressed air dusting device should be applied to the negative just as it is entering the gate of the printer. If all these precautions are taken you will seldom be troubled with dirt unless the operatives neglect to replace filters and fail to keep clean the various apparatus used for cleaning!

Summary

In summing up, the factors influencing the production of duplicate negatives are:—

1.—Quality of the duplicating emulsions used.

(Continued at foot of next column)

FILMS COUNCIL

The personnel of the new Films Council to advise the Board of Trade on the administration of the Cinematograph Films Act has now been announced.

Readers will remember that one of A.C.T's. points in its quota campaign was the appointment of representatives of the employees to this Council. We are glad to announce that this clause was incorporated in the Act, and Mr. George H. Elvin, Secretary of A.C.T., and Capt. A. M. Crickett, Secretary of Film Artistes' Association, are the employees' representatives.

Other representatives are:—

Trade Representatives:—

(Representing Makers of British Films)
Mr. J. Grierson
Captain the Hon. R. Norton

(Representing Film Renters)
Mr. F. W. Baker
Mr. D. E. Griffiths

(Representing Film Exhibitors)
Mr. T. H. Fligelstone
Mr. A. W. Jarratt
Mr. A. B. King, C.B.E.
Mr. C. P. Metcalfe

Lay Representatives:—
Sir Frederick Whyte, K.C.S.I. (Chairman)
Mr. H. C. Bischoff
Sir Walter Citrine, K.B.E.
Mr. Philip Guedalla
Miss F. Horsbrugh, M.B.E., M.P.
Mr. W. E. Jones
Mr. W. Leonard, M.P.
Professor Arnold Plant
Hon. Eleanor Plumer
Sir Hugh Seely, Bart., M.P.
Mr. F. Wilkinson

Mr. W. H. L. Patterson, of the Board of Trade, has been appointed Secretary to the Council, and Mr. L. T. Moorby, Assistant Secretary.

DUPLICATE NEGATIVES

(continued from previous column)

2.—Degree of contrast.
3.—The composition of the developer.
4.—Cleanliness.

If all these factors are given careful consideration as detailed in this article, there is no reason why, with modern duplicating emulsions, first-class duplicating negatives should not be turned out by any film processing laboratory.

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Cinema Log

by KENNETH GORDON

Dufaycolor Coming into its Own

A large number of successful colour reels are being made using the Dufay process. These include Pathé's King's visit to France, and British National's travelogues in Ireland (filmed by ace cameraman Bryan Langley, who is now in Scotland filming location shots for "The Key Above the Door.") Several more feature films are to be produced, including "Rob Roy" for Gainsborough. And I hear that Harcourt Pearson Ltd. will make twenty-four short story films in Dufaycolor. These films, to be produced by Harcourt Templeman, directed by George Pearson, and edited by J. Neill-Brown, will include both studio and exterior locations, under the photographic direction of that camera artist Ernest Palmer, whose beautiful work in "Edge of the World" will long be remembered. By the way, slow motion pictures have been taken in Dufaycolor of Phil Taylor, the world-famous skater, jumping through a hoop in the ice spectacle "Switzerland."

George King also has a line-up of six picture in Dufaycolor to be produced at Sound City, where special equipment has been installed. The first is "Claude Duval," starring Carl Brisson. Location work starts this month and the studio sequences are scheduled to start on August 8th.

Our Oldest Studio

In a quiet side street in Walton-on-Thames stands our oldest studio, which has been in continuous production for thirty years. It has been modernised, but still stands as a monument to the foresight of Cecil Hepworth. Here was first introduced the "dolly" and the motor-driven camera. George Smith is now filming "The Affairs of Reggie" at Walton, and spending £15,000 on the picture to fulfil the new Quota regulations. This, I am sure, will require him to lose a lot of bad economy habits.

This is George's fifty-first film. He states he is putting more shooting days and important players into the picture so as to spend the £7,500 labour costs. He makes no statement that he will pay more money to his technicians.

The Cinema and Racing

The Derby and Ascot are two events free from the influence of Rota, and they allow newsreelers the opportunity to show their true worth. I wonder if those of you who viewed the storm pictures in the press following the Derby know that the crumbled mass of ironwork depicted in the illustrations had been supporting two cameramen a hundred feet above the Epsom crowd a few hours before, and high winds later had crashed the tower to the ground. Risks must be run, but the luck of Paramount's Gemmell and MacGregor again held. A pleasant feature of the Derby was the number of free lances employed to supply negs for America, but I do think newsreel editors could put more work in their way, because competent free lancers are very necessary at times.

"Lovely Woman"

A number of technicians are wondering when the horse owned by Billy Jeapes, Universal newsreel chief, is going to win. Talking of racing brings me to the close alliance between the Turf and Wardour Street. Reg. Kemp, the Nottingham exhibitor, has a string of horses under trainer Russell at Maplethorpe; Tom Walls has many first-class horses under his training at Epsom, and rumour has it that he turned down a first-class Hollywood offer to be near his horses. How many of us remember cameraman Harold Jeapes wearing "silk" over the sticks, or Warner Bros.' shorts salesman Tommy Ingeriding "Othering," Britain's fastest 5-furlong mare, at Epsom for brother Billy. To-day one of the keenest betting syndicates to visit our courses is composed entirely of the cinema industry's "top-notchers," and from information received, what a "pain in the neck" they are to the bookies!

Another Little Daughter Won't Do Us Any Harm

From Hollywood comes news of the birth of Anita Lippens, daughter of Cameraman and Mrs. O. H. Borrodaile, to whom we tender congratulations. Borrodaile will be remembered for his excellent camera craft in many recent Denham epics. This British technician returned to Hollywood during the slump. He holds both A.C.T. and A.S.C. membership. We trust he will soon be back with us.

Royal Photographic Society to Leave Russell Square

The 83rd Annual Exhibition of the R.P.S., from September 10th to October 8th, will be the last held at Russell Square. After that the Royal will move to new premises at 16, Princes Gate, Hyde Park, S.W.7.

To meet the expenses of removal an Appeal Committee has been formed, a member of which is A.C.T's. President, the Hon. Anthony Asquith. Any contributions to this great work will be much appreciated.

For 85 years the R.P.S. has encouraged the advancement of photography by all means at its disposal. A.C.T. is affiliated to it through the Photographic Alliance, and many of our members hold its fellowship and associateship.

Mussolini Muscles Into British Screens

Secretly shown in London amid much Fascist saluting, Mussolini's first film using English actors, but made in the new Italian studios, was recently shown.

Entitled "Thirteen Men and a Gun," this picture's cast is entirely male and includes Wally Patch, Gibb McLaughlin, Allan Jeayes, Arthur Wontner, Boni Crawford and Donald Grey. The story tells of the plight of thirteen men on the Austrian side of the Russian frontier during the Great War, accused of espionage.

This film is the result of the Duce's ambition to shatter Hollywood by building a gigantic film industry in Italy. The verdict seems to be that even our industry need have no fear.

Western Electric Pioneer to be Film Hero

Yes, the inventor of the telephone, Dr. Alexander Graham Bell, born at 16, South Charlotte Street, Edinburgh, Scotland, is to be the hero of a 20th Century–Fox film epic, "The Life of Dr. Graham Bell." The Doctor was the father of Western Electric through the world-famous Bell Telephone laboratories, in which was evolved the present sound system. It may be interesting to recall that it was in June, 1875, at Boston, where Dr. Bell was then experimenting, that the first telephone conversation was transmitted from one room to another, and the words were "Mr. Watson, come here, I want you." Yes, friends, Britain has still first class technicians.

"TATLER" HAS A TRY OUT

A reprint of some notes of "Tatler" in a recent issue of *The Daily Film Renter.*

WHICH reminds me—had a try-out the other afternoon—in other words, went to a local kinema just to see how my hearing reacted. Wasn't so bad as it turned out—and I caught most of the dialogue—but I'm bound to confess that what I did get didn't amount to a great deal. Fact is, you know, whenever you pop in at local kinemas you too often get the shock of your life! House had about sixty people—true it was a four o'clock performance—but boy—how they put pictures on! They don't—they just chuck them on the screen!

Nobody about the vestibule as you go in—never see the manager—he's too busy making up returns—or filling up forms. No presentation of the picture in any shape or form—just, as I say—chucked on. You either have to like it, or lump it—and that's why people stay away from the kinemas. Fact of the matter is, the reasons why exhibitors are not doing too well are twofold—poor pictures—and no showmanship! As far as I can see—with some possible exceptions—showmanship seems to have entirely gone by the board, and until it comes back—and until both renter and exhibitor do their darndest to put on a good show—not once but all the time—people will just go on staying away.

It's an unpalatable fact, but there it is. Not my purpose to preach—but I've been to a few shows in the daytime—and in the evening—and what they lack in presentation, and what they lack in any attempt to put it over to the public—which is precisely the same thing—is heartbreaking. In the old days there used to be a good deal of showmanship—but now—nobody seems to care two hoots about it. Maybe the fact the houses are circuit controlled, and the manager in so many cases has nothing whatever to do with the picking of the programme—is in part responsible for it.

* * *

But even in different circumstances, the exhibitor doesn't strain every nerve to hold patronage—and neither, for that matter, does the distributor, who shares in the receipts, go very much out of *his* way to help him. Idea seems to be to send the film down with a few posters and a Press sheet—and that's that! Only when both sides revise their ideas and get behind their pictures will the public come back. At the moment the public are not tired of *pictures*—they're tired of *bad* pictures. Good stuff gets by—and the public can smell the doubtful ones—no argument about that! So let that thought remain with the industry, when it's talking about a campaign to get people back into the theatre. You'll never get them back with slogans—you've got to do more than that.

"N.S."
(NEWMAN-SINCLAIR)

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Phari Dzong,
Tibet, 14,300 ft.,
April 24th, 1938

You have had many letters in praise of your wonderful apparatus, and no one knows better than yourselves the amazing workmanship that is put into all your eqnipment, but at the risk of being one more of a large crowd, I should like to take the opportunity of telling you how marvellously my Auto camera has stood up to a very trying variety of climates.

Since leaving London on Jan. 15th, I have travelled through British India, Siam, Malay, Java, Samatra and on to Celebes, the large island between Borneo and New Guinea In the latter place the temperature was 100 degs. and humidity about 94, one of the most trying climates imaginable

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Documentary director STANLEY HAWES on FILMING AT THE ZOO

[*By courtesy of The Strand Film Co. Ltd.*

THE great problem in making a series of films in a Zoo is to give any sort of impression that the animals are in natural surroundings. Plenty of films have been made in which the animals have been treated frankly as inhabitants of a Zoo. Many of these films have been good, but many of them have been patronising and condescending, content to get a laugh out of the animals' antics, and particularly out of the apparent similarity of their actions to those of human beings. I say "apparent" because the reason behind an animal's actions usually bears no relation to the reason behind a similarity of their actions to those of human beings. I of even the most man-like creatures, such as the chimpanzees or gorillas, and modern science is concerned more with the differences than with the similarities between the behaviour of apes and mankind. Besides, animals resent being laughed at This is obvious if one watches the reactions of a monkey which is causing amusement to a crowd of spectators. Unless it is deliberately showing off, its discomfort is quite plain. The recent series of films made by Strand Films at Regent's Park and Whipsnade have tried to get away from this attitude, and to present the animals in as natural and as dignified a manner as possible.

The first difficulty is obvious. The animals are in cages, most of which look like cages and nothing else. At Whipsnade there are paddocks in which the beasts' natural habitat is reproduced with tolerable accuracy, and this makes the task easier. It is possible to shoot lions and tigers prowling through bushes and undergrowth in such a way that only the expert botanist can tell that they are not in their native jungle. At Whipsnade, too, many inoffensive creatures, like wallabies and deer, and a number of birds, are loose in the park, and can be shot with appropriate backgrounds. Other animals can be brought out of their cages without much trouble. Elephants, young chimpanzees, baby lions, tortoises, and other well-disposed creatures, can be put more or less where one wants them, though one's troubles are not thereby ended, because the difficulty of manoeuvring a four-ton elephant into the right position and inducing it to stay there long enough to get a shot can be easily imagined. Also an animal out of its cage is an animal with an unfair advantage, and it is up to the unit to watch what it is doing. I once had a small monkey, a great favourite with Zoo visitors, brought out of its cage and held in its keeper's arms while I took a close-up . It sat there perfectly quietly and allowed me to make friendly advances until I thought that all was well. Then in my first unguarded moment it seized my finger and gave me the wickedest bite which I ever hope to receive. I sometimes pause outside its cage and listen to the people saying, "Isn't he a dear little fellow?"

But the dangerous animals must be shot in their cages or not shot at all. There is no hope of a keeper consenting to bring a rhinoceros or a gorilla out on to the lawn to oblige even the most persuasive director. So it is the cage or nowhere. The cages are usually enough to turn a cameraman's hair white. Those in the Monkey House, for instance, are lined with smooth white tiles, very pleasant and hygienic for the monkeys, no doubt, but resembling nothing so much in a photograph as the interior of a public lavatory. Even when the walls are less lavatorial there remain the bars. Bars are the cameraman's greatest bugbear, with the possible exception of wire netting, which sometimes takes their place.

There is a cage of gibbons on the lawn at Regent's Park. Gibbons are the most graceful of all the monkey tribe. Their rhythmic movements as they swing along are indescribably lovely. But the cage is surrounded with wire netting, which prevents shooting from the outside. To enter the cage is to invite all the gibbons to jump on you, biting your ears, neck, fingers, and even your nose if they can get at it; and you might as well try to anticipate a flash of lightning as a gibbon. So the only thing to do is to poke the camera lens through the

netting and hope for the best. Panning, which is essential to do the gibbons justice, is impossible. Fortunately there are gibbons in another Zoo out in the open on a small island, and we were able to get an amazing sequence of them swinging about in the trees. Other cages present the same problem. The cameraman must push his lens through the bars and keep his wits about him. Because when there is room for a lens to pass through the bars there is also room for a gorilla or chimpanzee to put his arm out. It is an interesting game, and victory is to the swiftest.

Whatever the conditions of shooting, one thing is indispensable—patience. After a few weeks of working with animals a director or cameraman reaches that sublime state of indifference to time and the external world which it takes the Buddhist a lifetime to attain. The animals may be doing just what you want them to do; they may have been doing it for hours; but the moment you set up a camera they decide they've had enough for to-day. There is nothing for it but to wait. You can swear at them till you're blue in the face, but they know very well there is no pay-off at the end of the day, and they see no reason why they should go out of their way to be helpful. The more intelligent they are, the less likely they are to do what you want. Monkeys, for instance, realise that something unusual is going on the moment they see a camera being set up, and are far more interested in watching what the cameraman is doing than in getting on with their own business. When they do get on with their own affairs they are usually unshootable. If chimpanzees don't like the look of things they spit. And how they spit! There is one at Regent's Park who will sit quietly at the back of his cage and spit without moving a muscle. And he gets the cameraman's eye nine times out of ten. The reptiles, with no brains to speak of, are the easiest from some points of view. They remain immobile for hours on end, and there is plenty of time to get a shot lined up, although when it is taken it is apt to suffer from lack of action.

[Photograph by W. Suschitzky

But when animals finally do their stuff they are grand actors—completely unselfconscious and able to do the right thing in the right way. They provide their own humour and they have their own dignity. A good batch of Zoo rushes is worth all the time and trouble spent in getting them.

THE BELL & HOWELL COMPANY LTD., inform us that they have been appointed exclusive selling agents for the United Kingdom and Europe, for the 16mm. Sound Films of Commonwealth Pictures Corporation of New York.

These 16mm. Sound Films are six, seven and eight-reel Features, consisting of melodramas, society dramas, westerns, etc., and are all optical reduction prints of the highest quality, specially processed so as to add to the life of the film. The first list contains fifteen titles, available for outright purchase at £5 per reel to approved dealers.

A NEW MICROPHONE

THE new condenser microphone Type R.K.2 (marketed by Films and Equipments Ltd.) has, it is claimed, properties hitherto not possessed by this type of instrument. In principle the new type is similar to an earlier model, which has been used very successfully in sound studios during the last few years, but numerous modifications have been made to bring the performance up to the extremely high standard now demanded.

All condenser microphones have hitherto been of such a size that different polar diagrams are given at different frequencies. The result has been to limit the range of action of the microphone to a comparatively narrow angle, and as reverberation effects come from widely different angles, these were not given their true colour.

The only effective way to overcome this defect is to reduce the size of the microphone to such a value that any such frequency-favouring effect is removed to as high a frequency as possible. The difficulty remained to retain the sensitivity and high signal-to-ground noise ratio given by the earlier model.

The new model is the result of investigation over 18 months. This model exhibits a polar diagram independent of frequency up to 5,500 cycles and very little disturbance up to 8,000 cycles. Its sensitivity is the same as the earlier model and the signal-to-ground noise ratio is smaller by 4db. at the most, an amount which can be disregarded in view of the very high ratio in the earlier instrument.

The low excitation voltage of the earlier model has been maintained and, owing to the very small size of the diaphragm ($\frac{1}{2}$ in. diameter), breakage and leakage troubles have been still further minimised.

To reduce stray capacities and leakage, an ingenious scheme of mounting the microphone transmitter on the grid terminal of the A.537 valve has been adopted, the small size and weight of the transmitter making this possible.

The capacity of leads has by this means been reduced; a highly insulated support is provided and trouble from condensation reduced by the warmth of the valve.

It has been found that only the valve and grid leaks in addition to the microphone need be contained in the microphone case itself, so that the size and weight of this member has been greatly reduced. The total weight of the unit complete with valve, microphone transmitter and protecting wire gauze cage is 10 ozs.

As a general practice the valve and microphone are fed from a small battery box at the end of a 30-ft. thin flexible screen 5-core cable. In the battery box is mounted a feed resistance for the valve and transformer transforming to a 200-ohm line. From the battery box a strong 2-core cable can be carried over the floor. Other arrangements can be provided for, as and when required.

The response curve of the microphone has been examined by a number of methods. The electrostatic method, in which an electric force is applied to the diaphragm from a grill placed near the diaphragm, gives the response curve indicated in the attached figure, and there is every indication that this is in the main followed from most angles of sound wave attack.

The pressure rise at 8,000 cycles shown in the electrostatic calibration curve may, if desired, be shunted out in the amplifier, but so far this has not been found to be a serious defect, as most recording and reproducing apparatus tends in the opposite direction.

It should be noted that when this microphone is used for film work, a film loss correction exactly similar to that used in re-recording should be used in the amplifier. A large number of recordings taken with many voices substantiates this.

The bass response of the microphone down to 50 cycles is excellent, the maximum loss at 50 cycles being only about 4db. This bass response is very clean and free from defects due to corrected resonance characteristics—such as that shown by ribbon microphones. Response as low as 25 cycles has been taken, and the loss here is not more than 8 db.

In film work, as the microphone has negligible loss at low frequencies, bass cuts must be inserted in the amplifier when the voice is being recorded. This is probably mainly due to the fact that the reproduction is always much louder than one ever hears a human voice. It has been found that an amplifier curve dropping slowly from 1,000 cycles to about 9 db. at 100 cycles is approximately correct, but a few trials directly through the microphone to audition loudspeakers will indicate the best value. There is no exact theoretical basis for the amount of bass cut necessary. The makers are of the opinion that bass cut should also be used, perhaps to a lesser degree, for voice transmission in radio work.

SOLAR MIRRORS

(Continued from next page)

match with a sea of balloons shot with H.I. Arcs, tried out an experimental shot with the Solar Blue Mirror at Riverside Studio. The area in front of the black background against which the balloons were released was illuminated with three 2-K inkies to 1,200 foot candles, using the same light meter as for the original shot. The shot was taken four times without a compensating filter *on the camera* and the result when screened matched satisfactorily. Two separate pairs of woman's hands were also shot for a trick sequence and finally a colour chart illuminated alternately with light from a Solar Blue Mirror and normal White Mirror to indicate the difference in colour rendering.

The use of incandescent lighting in colour films is by no means new, for Bill Skall, A.S.C., demonstrated the effectiveness of this method in the film "Dancing Pirate," although in this case extensive experiments were undertaken, the rating of the lamps high 5-Ks being the general unit working at the maximum colour temperature of the filament. With the Solar Mirror, the open 18, 24, or 36 in. inky is quite suitable working at medium spread and in this way high contrast effects are easily obtained with the usual arc source if required.

The revolution in lighting technique will do more to advance the use of colour than any lighting unit yet introduced, while at the same time improving results with normal black and white.

Experiments are now progressing with a further type of Solar Blue Mirror, the results of which will be available later.

SOLAR MIRRORS

NEW LIGHTING FOR ALL PURPOSES

RECENTLY a new system of illumination introduced into the studio and cinema fields has produced rather remarkable and increased light value of high efficiency with standard equipment. This high efficiency is obtained with all types of low intensity arcs and incandescent lamps used for projection, set lighting, and more recently still, colour photography.

The new system takes the form of a Solar Blue Mirror (*Patent No.* 461160) designed with a certain percentage of cobalt blue in the glass melt prior to casting, producing in turn a light blue mirror of high reflective and corrected qualities. As the blue mirror alters the colour balance of the light, tests relating to colour cinematography have been rigorously controlled by the Expositron. These tests have shown conclusively that with the lamp set for an equal lightflux the blue deficiency of incandescent lamps was materially lessened.

In the projection field, say in the studios and laboratory section, black and white and colour rush prints are not seen under the best condition with L.I. or inky light sources, due to the high percentage of red–yellows and the low percentage of the blue–violet—namely 60% for the former and 15% for the latter—when equipped with standard mirrors. By the adaption of the Solar Blue Mirror with its increase in the blue violet of some 22.7%, the consequent increase in actinic light value improves black and white prints to a remarkable degree, while colour rushes closely approximate the real thing. This change in actinic light value gives to the small theatre with L.I. or inky light the equivalent light value of the cinema H.I. Arc. This standardisation of lighting must eliminate a high percentage of complaints re bad prints due mainly to differences in projection light qualities and be of inestimable value to the industry.

On the studio side a large number of intensive experiments have been carried out, both in B. & W. and colour, using Solar Mirrors in normal inky units, ranging from baby spots to 5 Ks. One of the first and most notable achievements was the difference in the colour of the light source, giving a whiter light beam of the H.I. arc standard, that lifted reds from the muddy brown region to the true red region. When mixed with normal mirror units, the change of course was more apparent and gave rise to the query "Can this Mirror be used with colour successfully?" Billie Luff of Riverside Studio quotes tests on Solar Mirrors as follows: "I have made some preliminary tests of the Solar Mirror on B. & W. and colour and must say I am very impressed with the results. I am hoping to make further tests in the near future as I feel that this product is a step in the right direction and will be of great help to lighting men in the cinema industry."

Comparative readings taken on the Exposition through matched colour filters, using a No. 34 filter in front of the Standard lamp of 2 Ks. are Solar Blue Mirror. (1) Blue 18.7, (2) Green 17.5, (3) Red 19.1, against (4) Blue 16.2, (5) Green 13.1, (6) Red 13.9 white Mirror using the same filters.

Following these tests, H. Chevalier, requiring a shot of some balloons falling past the camera as an insert to

(*Continued on previous page*)

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PIONEERS

The majority of the members of our Association have joined or become interested only since the present General Secretary took office. They have no idea of how the A.C.T. came into being or of the struggle it had in its early days to maintain its existence. In order to give such people an idea of the origins of their own organisation the following sketch has been compiled from material gathered by Mr. J. Neill-Brown.

MOST of the research into the important events of English history is undertaken in the "Rotunda" or Round House of the British Museum, in an atmosphere redolent of Gibbon and the Decline and Fall of the Roman Empire. Our research was undertaken in the Round House of Wardour Street in an atmosphere strong with the odour of Joe Kinder's beer and the decline and fall of the British Film Industry.

The first whispering of organisation among technicians arose at the G.B. Studios at Shepherd's Bush about January or February of 1933. Not long before that the new studios had been opened with a welter of publicity and fanfares of trumpets and trombones heralding in another of the many new eras of British Film prosperity. The first of their productions was "Rome Express" with Esther Ralston (American) and Conrad Veidt (German), photographed by Gunther Krampf (Austrian), and edited by Fred Smith (American). About the same time London Films were beginning to reach the limelight, with Georges Perinal (French cameraman), Hals Young (American cutter), Ned Mann (American trick expert), and Vincent Korda (at that time Hungarian art director). Ealing also were importing foreign talent, such as John Boyle (American cameraman), and B.I.P. followed suit, though to a lesser extent. Even a cursory examination of the production field showed that on the foundations of the 1927 Films Act the less ambitious type of film would be made by British workers and the supers by foreigners. Considerable uneasiness became manifest throughout the industry and came to a head at the Bush.

At that studio talks between technicians and chippies and sparks led first to the suggestion that technicians should join one or other of the existing unions. E.T.U. and N.A.T.E. But one or two of the cameramen began to toy with the idea of forming their own union, and to this end Roy Kellino and Bill Allen approached Jolly of the Sound department and asked him if he could suggest any plan. Jolly slept on it for a couple of days and then, by accident, hit on a scheme. His idea was that if a union of technical workers was to be formed it would require an outside organiser who would have the time and opportunity to contact people in other studios. One day, strolling through the local market, he met the very man for the job, a man who had some slight working knowledge of the film industry, who would have the time to devote right away, who had a good experience of organising similar things in the past, and, most importantly, who would not expect a salary at the start. A few days later he introduced his discovery to the staff of G.B.—Captain Mathew Cope.

So far no one had any idea at all of how this union would operate, or even how it was to be formed. But having got an organiser to take the burden from their shoulders, the original instigators sat back and breathed with relief. In fact they breathed for so long that Cope and Jolly had done most of the preliminary work by themselves by the end of March. At the beginning of April at the back of a cafe in the Shepherd's Bush area might have been seen a small placard bearing simply these letters—A.S.W., which apparently required no explanation, for none was given. If you were a technician, however, and if you knew of the mysterious goings-on at G.B., you entered the place and, with or without a preliminary demand for a large coffee, jerked your head towards the mystic notice, jerked half a crown out of your pocket, and were jerked round to the back of the shop where the proprietor entered your name and address in a note-book and your half-crown in an account book. You were thus an elected and fully paid-up member of the Association of Studio Workers.

After a time Jolly decided that this title was not a very good one and suggested that something should be got of which the initials should give a word or a slogan. The letters A.C.T. were thought of before the title itself was decided upon and Association of Cinematograph Technicians was used before Cope put forward the present variant.

The first important date in the Association's transactions is the 12th of April, 1933, the day on which Cope first officially met the interested members of G.B. He was introduced by Jolly and in a few words he gave them an outline of his career and qualifications, dwelling mainly on the lines on which he proposed to extend the A.C.T. to other studios, the general plans he had in mind, and the rules and regulations for membership. This was all heartily endorsed and enthusiasm ran high. The A.C.T. was practically ready to negotiate with managements already. There would be an immediate stop to the foreign invasion. Wages would go up. Overtime would be paid. Conditions would improve. Etc., etc. Indeed we should not be at all surprised if you could date from this time one of our great misfortunes . . . over-sanguine but temporary supporters. Everybody was unanimous on one point—that if you joined the A.C.T. this week you would see a difference in your pay envelope next week. Those who were dubious as to the benefit of that difference did not join, and those who were not joined in a rush of expectation that had its resultant reaction when nothing materialised. They withdrew their support, and the worst of it was that you never knew they had withdrawn; they didn't bother to tell you.

Meantime Cope began the good work. Rules were drawn up, largely with the help of O'Brien of the N.A.T.E., a working policy was thrashed out, names of interested parties in other studios were obtained, and within a month the nominal membership had grown by leaps and bounds. Some of the boys at G.B. gave Cope the names of friends at B.I.P. and elsewhere, and these people he either wrote to or contacted personally. The studios themselves were fairly easy; the big problem was the free-lance habitue of Wardour Street. Somehow or other

the organiser managed to make the acquaintance of a large, rotund, cherubic-faced individual who had been connected with the old cameramen's union years before and who had never quite lost his desire to see the industry organised. He had a playful habit of banging the table now and then and his favourite description of all "guv'nors" was "a crowd of lying, thieving, twisting, conniving, jelly-bellied, duck-shoving arch-baskets," which, like Dr. Johnson's epigram, is to be taken as a term of endearment. He gave prospective victims little quarter and simply handed them a form and demanded half-a-crown. No questions asked, no explanations given. You were automatically a member, at least according to Ken Gordon. And that's how Wardour Street was recruited.

Seriously, however, the enthusiasm with which the association idea was taken up gives but a small conception of how distressingly bad were the wages and conditions in the majority of the studios at the time and how urgently a union was needed to clear things up. In a few weeks it was considered possible to call a General Meeting of all who had joined and try to obtain a working committee or council.

Accordingly the first General Meeting was held at the Blackamoor's Head in Whitcombe Street on Monday, 22nd May 1933.

It is not to be imagined that at this time the aims and objects of the Association were quite clear to everybody or that there was anything like unanimity of purpose. Far from it. Indeed, it would be nearer the truth to say that there were as many conceptions of the A.C.T. as there were members, and most of these differing views came to light during the next few weeks. Among the

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more or less quaint ideas let us give a few. One was that it had been formed, like the A.S.C. in the States, simply for the protection of cameramen. Another was that it would only be open to technicians of from five to ten years' experience. Another was that it was to be an immediate "closed shop" and that as from the date of registration as a union all foreigners would have to leave the country. When this desirable object was not immediately achieved the supporters of it left the Association. Yet another was that it was to be a body of technical experts who were to advise the industry on the best way to go about its business. Still another was that it was open to everybody in the trade and misguided enthusiasts enrolled publicity managers, musicians, and directors, irrespective of whether we could ever do anything for them or not. One studio put forward the idea that in order to have the Association run by the senior men the juniors should have no vote at all. (An alternative to this was that everybody should have as many votes as he received pounds in his weekly pay envelope). Perhaps the strongest divergence of opinion was as to whether it ought to be a trades union or not, without anybody being very clear as to what they meant by a trade union, anyhow.

This is enough to show that the organiser had taken on a stiffer job than he realised in trying to weld this heterogeneous mass of ill-considered prejudice into anything like a uniform policy. All that was really certain was that the A.C.T. had been formed, its existence was known to the employers, some of its aims and objects were realised by them, and beyond all shadow of doubt the fight was on.

At that first General Meeting leading technicians from the different studios were elected to act as temporary committee or general council. It was also decided at this meeting that in order to induce all possible members to join immediately the entrance fee as from the 11th June should be increased from two-and-six to ten guineas! And that was actually passed. Two days later the elected committee reduced this to five guineas! The same committee passed a motion that no apprentices should be allowed to join the Association, but this motion seems to have been conveniently forgotten. Two days later another General Meeting was called at the Comedy Restaurant in Panton Street; it decided that the minimum qualification for joining the Association should be to have worked on at least six pictures. This also by mutual consent was never afterwards referred to, and the committee got out of the difficulty by adding after every rule that had been made the necessary words "at the council's discretion."

We could go on giving many examples of rules that were made either by committees or at General Meetings (of which there were many in the early days) only to be scrapped later, but they would only be small items in the one big general conclusion—that since its formation to deal with one specific problem, the foreign technician, the A.C.T. had expanded its programme so far beyond this that it was no longer quite sure of what it *had* been formed for or indeed why it had been formed at all, that it had, by bringing in a mass of uninformed opinion, so complicated its task that it was now necessary to scrap all that had been done by its instigators at the Bush and start again.

Cope had drawn liberally on the help offered by other Trades Unions in getting the rules of the Association drawn up, and the A.C.T. can never forget the debt of gratitude it owes to two other union leaders who gave unstintingly much moral support and a great deal of practical assistance to us in our first critical years—Alfred Wall of Equity and the London Trades Council, and Tom O'Brien of the N.A.T.E., the latter of whom helped in the framing of our constitution and spoke with great effect at the first really big Annual General Meeting at the Poland Street Rehearsal Rooms. On one occasion there was considerable heart-burning at Twickenham, as a result of which Wall and O'Brien agreed to accompany Cope on a visit to Julius Hagen. Although the affair concerned only the A.C.T., Wall and O'Brien went into the interview while Cope went into the local "pub"—not because he wanted to but because the other two were the only people that Hagen would consult.

At this time the officers of the Association were:—President, Cyril Stanborough; Vice-President, Henry Harris; Secretary and Organiser, Capt. Cope; Treasurer, Jack Dennis; Trustees, Dave Rawnsley and Dick Smith; these formed the Council together with Dicky Beville, Jack Cox and A. E. Rudolph of B.I.P., Roy Kellino and Jolly of G.B., Derick Williams and Hand of Gainsborough, Poser of Teddington, and Borradaile of London Films. The Council met at the "Blackamoor's Head" and it was at these first meetings that the snags in organisation were first noticed. Practically no one on the Council had any experience at all of T.U. methods and several indeed took the view that there was no intention of operating as a trade union. We were really supposed to be a high-brow society who were going for Royal Charters and what-not and who would eventually give degrees to qualified technicians. But certain employers thought otherwise. They had got it into their heads that we *were* a trade union and decided that it was not a very nice thing for their employees to belong to. Far, far better to work long hours, have unsatisfactory conditions and get no overtime in a hopelessly disorganised industry than to have standard and decent wages and conditions and so put yourself on the same level as the common workers. Official opposition to the A.C.T. grew tremendously both at the Bush and Twickenham. Cyril Stanborough was a real stalwart, refusing to budge an inch in his loyalty to the union even when Julius Hagen gave members at Twickenham one hour in which to decide whether to leave the A.C.T. or the studio. Cyril was on contract and preferred to remain in the union, anyway. G.B. dithered between taking the same action as Hagen or forming a company union of their own. A meeting was held to which they called all their employees, but in the end they did neither of these things, for which much thanks is due to the personal intervention of Ivor Montagu, then as now one of our most solid and loyal supporters.

It seems, however, at this time (July, 1933) that the efforts to stem the flood of the Association's activities at G.B. were having effect and while other places like B.I.P., B. & D., London Films, Gainsborough, Teddington, etc., were organising well, the studio that had been responsible for founding the union was dropping behind. On July 6th at another of the very frequent General Meetings, not

a single G.B. member turned up. The Secretary was constantly writing letters to the company, but the situation remained critical for a long time.

By now, the Council was beginning to realise something of the work it had ahead of it. It still met at the "Blackamoor's Head" and the members were getting more used to the best methods of procedure. The way in which subscriptions should be collected and recorded was decided upon and collectors appointed. Lectures and film shows were arranged. Honorary Presidents and Vice-Presidents were suggested (included among these were the names of Jock McCardle, Sam Harris, Blake of Kodak, Albert Clavering, Sir P. Cunliffe Lister, and Sir Philip Sassoon). The way in which the organising should be arranged was decided upon as well as the somewhat loose way in which the organiser should be paid, and by September the A.C.T. had settled down to the routine which soon became so familiar. The ever-present problems were:— (1) The studios whose management did not like us; (2) The gaining of the confidence of Government departments; (3) The invading foreigners; (4) The maintaining of our existing membership; (5) The running of lectures and shows; and (6) The calling of local meetings.

Gradually, through the mist of argument and debate (and sometimes abuse) one begins to discern a definite line of thought and action. There was about the Council then a certain old school tie atmosphere. The Secretary's monocle suggested it, the attitude of the new President, Sir Reginald Mitchell-Banks (elected about November), carried it a step further, and it was clinched by the violent anti-trade union attitude of the members at London Films, B. & D., and Gainsborough. Only B.I.P. seemed set on union methods. The employment register had been started and it was evident that apart from activity in supplying studios with staff in emergencies nothing came out of the Council meetings but the minutes. Members began the cry which has never really ceased even though it has lost its point—"What is the A.C.T. *doing*?"

Membership began to decline. In spite of the efforts of the Council and the table thumping of Ken Gordon, despite the charm of the President and the presence of M.P's. at the Annual General Meeting in 1934, the bulk of the rank and file began to drop out. Receipts were often too small to pay the organiser even his expenses. The vicious circle began—no money coming in to carry on the work of organising, no money wherewith to circularise members and inform them of our activities, no obvious result being shown to the members for what money they did pay, and less interest being taken by the few that were left. About December 1933, shortly after Sir Reginald had become President, the venue was changed to the Radio and Film Club in Great Pulteney Street and there it remained for nearly twelve months. During most of this year the majority of the time was taken up by trying to fight isolated cases of foreigners entering the country, or in drafting out a "Grading Scheme" whereby it was hoped to grade every member of the Association according to a rather elaborate system of age, years in the industry, number of pictures worked on, type of picture, and so forth. The grades at first were "Member," "Associate," "Student," and later, to give distinction to the few people left in the A.C.T. from the start, "Founders." It was so much of a Guild indeed that someone proposed senior technicians should be called "Senior Fellows," others "Fellows," and others "Licentiates." In fact the whole thing was rather reminiscent of a badly-run undergraduate debating society. Even the members of the Council itself began to lose heart. Meetings were held at very irregular intervals, anything from a fortnight to a month elapsing between each, and at that time many of these Council Meetings became in effect only General Purposes Committee Meetings, as not enough members turned up to form a quorum.

About October of that year, 1934, the big storm that eventually ended the old regime of A.C.T. began to blow up. Membership had fallen to about 100 only and those 100 were threatening to leave unless the Association decided to act like any of the other trade unions whose activities and results they saw round them every day in the studios. Forced by the pressure of opinion into altering its tactics, the Council called in Mr. Robin de Gruchy, of the National Union of Journalists, who gave a very lucid account of what it would mean to act as a thoroughgoing trade union. The Council was impressed and at the next meeting on November 15th they decided unanimously to go whole-heartedly for a trade union policy.

These meetings were now being held at the "Round House" in Wardour Street (scene of our researches) and it was soon decided that the Council would have to draw up a scheme in which the main idea was to enlist the help of Wall of Equity. At this point the affairs of the Association become somewhat complex. The unions were not exactly friendly with one another, the Secretary of A.C.T. was not exactly persona grata with Wall, Rowan or O'Brien. Cope wrote letters which were subject to misinterpretation; this caused the Council to form a signing committee which had to sign every letter before they allowed it to be send out, thus causing still further delay. (Imagine what the Secretary must have felt like when he had to take a letter all the way to Gainsborough simply to have it signed!) Taking everything into consideration it is not surprising that of the A.C.T's. now 80 members only about 20 per cent were paying subscriptions. At the root of the trouble was the growing difference in outlook between the trade-union-conscious Council and that old-school-tie Secretary. This is said without criticism of him as an individual, for we are very well aware that possibly no other person could have got the Association together at the start as well or as quickly as Cope did. Where he failed was in not realising that the technical staff were in daily contact with people who had themselves secured the best wages and conditions they could get through their appropriate trade union. The technicians were up against a more serious danger not only in the matter of wages and conditions but in the ever increasing menace of the foreigner. They accepted the Guild idea to start with, but when they found its operation was going to take so long and its results to be so uncertain, they went for the trade union policy. That policy Cope was not able to lead. At a meeting in the "Round House" on 2nd January, 1935, Captain Cope took the only step he could in the very difficult circumstances and resigned.

So at the beginning of the new year we were faced with having to find a new Secretary, and we found one. What he felt like when he took over the organisation and saw the awful muddle it had got itself into we don't know, but what the result of his survey was we do. Within a

(*Continued at foot of next page*)

ACOUSTICS PERSPECTIVE IN MOTION PICTURES

WHEN a person is viewing a real scene in real life, he is viewing it with two lenses—that is, the eyes—and with two pickup devices—that is, the ears—which are in a fixed relationship one to the other. The present sound picture has neither a stereoscopic picture nor stereoscopic sound. It is the equivalent of a one-eared, one-eyed man viewing a real scene in real life. It is fortunate that nature endowed our eyes, whether one or both, with an accurate sense of direction, since a one-eared person has practically no means of detecting direction acoustically. On the other hand, the loss of one eye greatly diminishes the ability of the observer to determine distance, whereas the loss of one ear, particularly under indoor conditions, acoustically enhances the sense of distance. We, therefore, find that the picture helps to draw the apparent position of the sound from one side to the other of the picture screen, while the acoustic perspective of the sound itself aids the eye in interpreting the picture perspective which is partially destroyed by monocular projection.

The method of obtaining acoustic perspective was discussed some years ago and a relationship was worked out between the microphone position and the focal length of the camera lens taking the accompanying picture.

There are occasions when it is necessary to use several cameras on the same scene simultaneously. Where the acoustic perspective is of no dramatic importance, a single close-up track can be used for all of the picture takes, the sound being dubbed to slightly lower volume for the long shot scenes. If, however, the perspective contributes materially to the dramatic effect, it is possible to obtain full acoustic perspective by the use of two simultaneous sound tracks. The first track has a microphone position corresponding to the closest close-up, while the second track has a position corresponding to the longest long shot. By mixing these two tracks in the proper proportions in the dubbing process, the sound can be made to appear to come from any intermediate distance necessary to fit the picture.

"LIVENESS FACTOR"

The principles of acoustic perspective and the suitable "liveness" for their application have been understood for some time. A brief review of these principles is considered necessary as an introduction to the discussion of stereoscopic recording.

It has been known for some time that the best microphone positions vary from room to room even though the apparent "liveness" of the recorded sound may remain unchanged. Since it is possible to obtain approximately similar acoustic effects under varying microphone conditions, it was felt that some constant of pickup procedure could be found which would include not only the microphone distance but the acoustics of the space as well. Such a constant has been determined and is called "liveness."

In general, the greater the liveness of the reproduced sound, the further does the source of sound appear to be away from the immediate foreground. In other words, the greater the liveness the more the sound approaches a long-shot condition. The second, but less important, factor controlling apparent distance is the loudness at which the sound is recorded and reproduced. By the proper control, therefore, of the liveness and the loudness, full fore and aft perspective can be obtained.

It is not possible, however, by the use of these factors to obtain any sense of side-to-side movement of the sound. In order to obtain the sidewise illusion it is necessary to record and reproduce at least two separate channels of sound. This type of reproduction has been termed "stereophonic." The control of fore and aft perspective of stereophonic recording is similar to its control in single channel systems, the addition of the sidewise illusion being the main characteristic of stereophonic reproduction.

Briefly, the factors of practical importance may be summarized as follows:—

(1) The sidewise position of the image is dependent upon the ratio of the intensity of the direct sound falling on each of the two microphones.

(2) The apparent position of the sound, back of the extreme foreground, is determined mainly by the ratio of reverberant to direct sound at the microphone nearest to the source.

With these two factors clearly in mind, it is possible to set up roughly a technique of operation in a six-wall enclosure such as a scoring page. Conditions existing on an open production set are not as well understood.

STEREOPHONIC

Stereophonic effects have been synthesized in those cases where not more than one sound is present at any one time. This includes the case of dialogue where one of the actors speaks first followed by the speech of the second, etc. It would not apply to the case of a heated argument where both actors speak simultaneously.

Under these conditions of the single sound source, long shot and close-up sound tracks are recorded separately. By a special circuit, whereby the output currents from each of the two resulting records can be distributed in any desired ratio between two stereophonic channels, it is possible to make the apparent source of sound come from any desired point on the picture set. The skill required of the dubbing mixer to accomplish this result is probably not as great as that required for some of the trick sound effects now being handled in Hollywood.

It is believed that stereophonic technique has been carried far enough in its purely experimental phases to make it available for actual picture production when the industry feels the need of another major advance. Problems which will arise under studio conditions should be of a type which can be solved by the application of the same type of ingenuity which the sound departments of the various studios applied in the past to the adaption of sound to silent pictures.

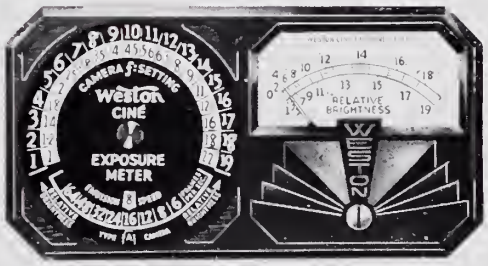
(This article, by J. P. Maxfield, A. W. Colledge, and R. T. Friebus of Electrical Research Products, Inc., is published by courtesy of The S.M.P.E. Journal and The Western Electric Co. Ltd.)

PIONEERS *(continued from previous page)*

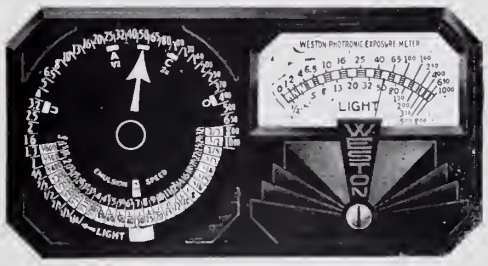
few weeks the Council meetings were real Council meetings, renewed interest sprang up, members became once more conscious of the part A.C.T. could play. From 80 members in December, 1934 to about 1,400 now is a story that must wait till a later issue of this Journal, and then it may best be told by the man who has been practically entirely responsible for the growth of this union—Mr. George H. Elvin.

WESTON EXPOSURE METERS

Model 650 Leicameter.



Model 819 Cine Meter.



Model 650 Universal Meter.

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You Now Work in a Factory

By GEORGE H. ELVIN

IN a foreword to *A Guide to the Factories Act*, 1937 (H.M. Stationery Office, 6d. net) Sir Samuel Hoare, the Home Secretary, claims that the Factories Act of 1937 is an important milestone on the road to safety, health and welfare to industry. Fortunately he does not attempt to indicate how far that milestone is from the ultimate destination. Trade Union Members of Parliament who endeavoured, with a certain degree of success, to improve the original draft Bill feel it contains far too many loopholes and gives the employer too many opportunities to escape his obligations. But the new Act is definitely a step forward—**particularly so far as film workers are concerned.** Previously only laboratories and the cutting rooms in the studios were classed as a factory. As from **July 1st, 1938** (when the Act became operative), the studio floor came under that head and the provisions of the Act now apply to all branches of film production. The only persons not now covered are theatrical performers.

George H. Elvin.

A Factory is broadly defined as *any premises, including premises in the open air, in which PERSONS ARE EMPLOYED IN MANUAL LABOUR by way of trade or for purposes of gain.* Special types of labour covered are defined and certain particular premises to which the Act applies are listed. One of these is:—

> *any premises in which the production of cinematograph films is carried on by way of trade or for purposes of gain, so, however, that the employment at any such premises of theatrical performers within the meaning of the Theatrical Employers' Registration Act, 1925, and of attendants on such theatrical performers shall not be deemed to be employment in a factory.*

This makes it clear that the Act applies to film studios, but the employment of artistes and their attendants, such as dressers, is not covered. A.C.T. welcomes the above clause and it enlisted the support of the Trade Union group of Members of Parliament in its support.

It also seems clear that the Act applies to *all* premises where film production is carried on—not merely studios. For example, locations (i.e., open-air premises) and certain auxiliary premises such as theatres, cutting rooms and premises of a like nature (e.g., as in and around Wardour Street).

Summaries of Acts can be very dangerous friends. But it is realised many members will be unable to read the Act for themselves—even if they did they might be little the wiser if not versed in the particular phraseology and adaptations of the King's English used in statutes. For example, "a place situate within the close, curtilage, or precincts forming a factory" could, in the layman's opinion, be interpreted in a much simpler language without losing any of the sense. The Home Office Guide, however, to which I have referred, is a much more lucid document and should be read by all who can get hold of it. Your studio or laboratory secretary, to whom a copy has been sent, or Head Office, can lend you this.

The following are some of the more important regulations of the Act. It is emphasised that in the case of possible breach or difficulty, reference should be made, however, to the Guide, the Act itself, or Head Office.

GENERAL HEALTH PROVISIONS

Accumulations of dirt and refuse must be removed daily.

Floors must be washed, or, if effective and suitable, swept weekly.

Effective provisions must be made for securing reasonable temperatures and ventilation. Workers must not be unreasonably exposed to excesses of temperature—either high or low.

There are general provisions with reference to over-

crowding, ventilation, lighting, drainage of floors, sanitary conveniences.

A clause of particular importance to the laboratories is one giving the Secretary of State certain powers for requiring medical supervision in particular circumstances. For example, where he has reason to believe that cases of illness which have occurred may be due to the conditions of work, or that some new process may cause risk of injury to health, or that some work on which young persons are being employed may cause risk of injury to their health.

SAFETY PROVISIONS

The Safety Provisions contain a number of amendments on the old Act. Points covered include fire precautions, protection against acids and other dangerous liquids, safeguards in connection with machinery.

GENERAL WELFARE

New general requirements are laid down, which cover washing facilities, accommodation for clothing, and First Aid.

Adequate and suitable washing facilities must be provided, with soap and clean towels. (This Section does not come into force until 1st July, 1939). A First Aid box or cupboard of the prescribed standard is required. If more than 50 persons are employed a *new* requirement states that the person in charge of each box must be trained in First Aid treatment.

SPECIAL HEALTH, SAFETY AND WELFARE PROVISIONS

All practicable measures must be taken to protect employees against breathing dust, fumes or other impurities.

Persons under 18 of either sex must not lift, carry or move weights likely to cause them injury. There is no guide as to the maximum weight, but in the 1901 Act weights in certain industries were restricted to 50 lbs. for boys under 16, and 65 lbs. for youth between 16 and 18. This clause would, therefore, apply to cameras and other studio gear.

HOURS OF WOMEN & YOUNG PERSONS

One of the most important features of the Act is that it greatly reduces the permissable working hours laid down in previous Factory Acts both for women and young persons. *There are no provisions dealing with the hours of employment of adult males. A woman* means a female who has attained the age of 18, but the provisions as to hours, Sundays, and holidays do not apply to women holding responsible positions of management, who are not ordinarily engaged in manual work.

A Young Person means broadly a person between the ages of 14 and 18 who is no longer required to be sent to school. The fact that a young person works for no wages, or is an apprentice, does not exempt him or her from the provisions of the Act.

The total hours worked, for women and young persons, exclusive of meal and rest-breaks, must not exceed 9 in any day nor exceed 48 in any week. The latter figure will be reduced as from July 1st, 1939, to 44 hours for young persons under 16. There must be a minimum half-hour break after every 4½ hours worked. Work must not begin earlier than 7 a.m. nor finish later than 8 p.m. (6 p.m. in the case of persons under 16), or on Saturday 1 p.m. Sunday employment is prohibited.

A limited amount of overtime is permissible, but it :—

(a) Must not exceed 100 hours in a calendar year;
(b) Must not exceed 6 hours in any week;
(c) Must not take place in more than 25 weeks in any calendar year.

Before employing any woman or young person on overtime on any day, the firm must send in writing to the District Inspector, and enter in a register to be prescribed, such particulars as may be prescribed of the overtime employment.

Christmas Day, Good Friday and Bank Holidays are compulsory holidays, but alternative days may be substituted by the employer posting up in the Factory notices of such intention at least three weeks before the holiday in question.

OFFENCES, PENALTIES AND LEGAL PROCEEDINGS

Generally, "the occupier" is responsible for contravention of the Act, but no interpretation is given of this expression. He is usually deemed to be the person, or company, having control over the premises or those working on the premises. There is a general fine not exceeding £20 for breach of the Act plus £5 for each day on which the contravention is continued after conviction. There are other special penalties.

CONCLUSION

The Factories Act, 1937, is necessarily long (it runs into 145 pages) and complicated, covering as it does most of the important general aspects relating to employment in the industry. But it is for this reason very important and it is hoped that its length and complexity will not prevent members from studying it. It is brought into law for their good. Constant vigilance will be necessary to ensure that studio and laboratory technicians and workers reap all the benefits this piece of social legislation affords.

OBITUARY

It is with very deep regret that we have to record the sudden death of EDGAR ROGERS, an early A.C.T. member and an esteemed veteran of the industry with over forty years' experience. His last employment was in the Gaumont-British model department, where he was until they moved from Lime Grove.

We extend our deep sympathy to his children, who include Jimmy Rogers, the well-known cameraman. They have inherited his enthusiasm and flair for films and are all in the industry in varying capacities.

WHAT OFFERS,

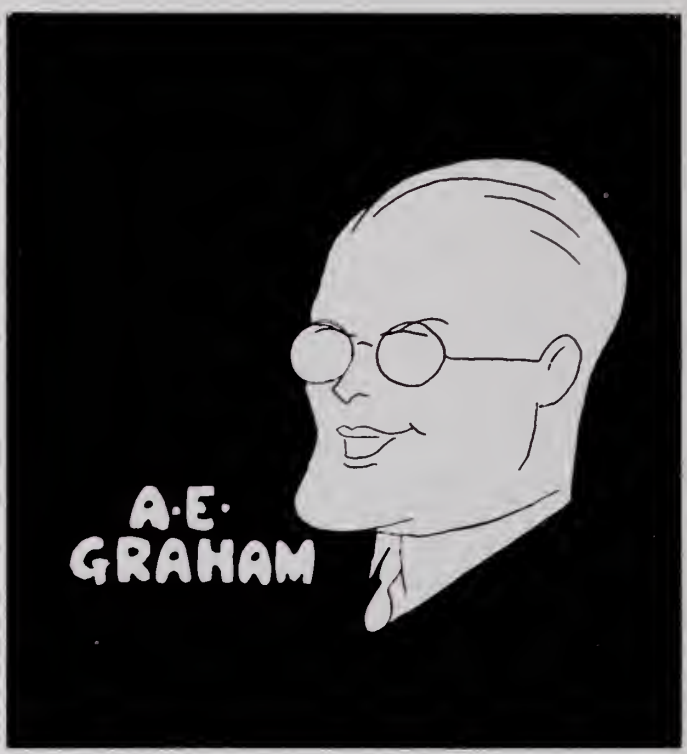
A "Hollywood Reporter" advertisement :—

Am young, blonde and beau., want chance in film. 118 lbs. Am. dram. exper. Ride horse bk. and expert boxer. Can be pleasing to producers too. Box H–156.

By courtesy of Progressive Film Institute Ltd.

PICTURES IN WARTIME

by



TO accompany a beautiful blonde to a cinema a mile from the front line trenches is an interesting experience. Unfortunately I have never had that pleasure. Firstly, all the cinemas were full. Secondly I wasn't with a beautiful blonde: only with Thorold Dickinson. This, of course, is an experience but of another kind. We were in Madrid, not, as you may have gathered, to see pictures, but to make them. How we came to be there is a long story which I shan't attempt to relate. What I shall try to tell you is something about the Spanish film business.

There is in Government Spain to-day, in spite of the War, a busy little film industry, producing in the main newsreels and documentaries. There are two main companies engaged in this work. The largest is *Film Popular*, covering all Republican territory, making a weekly newsreel and a fair number of documentaries. "Galicia," one of the latter, a lyrical film dealing with life in that region, won a Gold Medal last year in Paris. But these shorts are not confined to ethnological subjects only. They range from pottery-making and farm work to the technique of blood-transfusion and to films on various military actions in the "March of Time" style. The cameras chiefly used for these are Eyemos, and some of the material which has been obtained on the battlefields is amazing. Shots from the trenches across "No-Man's Land" during attacks and close-ups of the fighters in action bring the horror and terror of war home to you with a vengeance. The second company is called *Laya Films*, operating primarily in Catalonia, producing films similar to the above, but with Catalan commentaries. There is no truth, however, in the rumour that it is going to make a picture on the Elephant and the Catalan Question! Military subjects of various kinds are made occasionally by Army units, several very good ones having been made by the Centre Army at Madrid. We saw one that had to be shot on sound stock owing to a shortage of negative. We were told it was shot on a rather dull day when there was no great range of tone contrast. The result was surprisingly good. We were also shown a shot of an explosion which would have delighted the hearts of one or two English directors whom I could name. In fact, I thought that they must have had something to do with it, until we were told that every precaution had been taken to make sure that the cameramen were safe.

Ordinary studio production has never been very plentiful in Spain and since the rebellion this little has become even less; even so, one or two films have been made at the Lepanto Studios at Barcelona. The production qualities of these films are, however, not very high; they bear a marked resemblance to some of the early Quota "quickies." The greatest snag in Spanish film production at the moment is the shortage of raw stock which has to be imported, and consequently it is used very sparingly. English studios have a legend of the novice who was told to bring a "film-stretcher" in order to extend the length of a shot, and who busily trotted off to find one. If he could find such a stretcher and take it out to Spain to-day, he'd make a fortune.

The cinemas do very good business, even under the most adverse conditions. For example, most of them in Madrid are along the Gran Via, in which stands the famous Telefonica, the target for over eighteen months of the Fascist batteries only a few miles away, and it is impossible to get into any one of them on a Sunday afternoon without having previously booked. The majority of the films showing are American—some rather old—either sub-titled or dubbed into Spanish. There are a few Spanish, French and Russian pictures, and while we were there a Harry Roy film was released ("Everything in Rhythm."). The dubbing of Spanish on to foreign films is done very well and is considerably ahead of many of the dubbed films which have been shown here in England. Some of the cinemas show nothing but shorts, news and

(*Continued on page* 58)

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THE SERVICE THAT GROWS BY RECOMMENDATION

WOMEN & THE A.C.T.

THERE is an unreasonable tradition in most industries—very prevalent in films—that the men should start the scrap over wages and conditions and the women wait for results. Consequently a section of the trade, numerically powerful ,is more or less of a dead weight in the struggle for a satisfactory standard of wages and conditions. Most women are either nominal members of the Association or outside it altogether. They are apt to say, "I've been in the trade for 3–7–20 years; what can the A.C.T. do for me? It's only another weekly subscription to pay out." Alternatively it may be, "We can't do anything on this job; there are too few of us here." There is even the belief that the A.C.T. is a sort of glorified employment agency with a dash of the Cinematograph Benevolent Fund thrown in. Besides, a good percentage of girls consider that they are only working temporarily, until they get married. Leaving aside all statistics relating to surplus women and moral warnings about counting your chickens before they are hatched, there is still no sort of reason why they should not have the best possible wages while they are working—wages that give them a sufficient margin for saving too. After all, many women want to take up their jobs again later, their husbands may fall out of work—the family's income might need supplementing. And it is setting a lower standard of wage rates to which their fellow workers have to conform.

These various attitudes and misconceptions must cripple the Association. Wardour Street is crowded with small firms employing chiefly women—especially in the cutting rooms—who work for well below the average rates for as many hours at a stretch as happens to be convenient to the boss. A current superstition—relic of the days when studios were furnished with producer's nephews and hopeful amateurs working for "Art for Art's sake" salaries—is that if the staff is determined to walk out at 6 o'clock, the employer can sack the lot, walk out into Wardour Street and fit himself up with the hungry multitudes of technicians hanging around. In point of fact, it is now generally acknowledged that the simplest way of getting an efficient technical staff is to apply through the A.C.T. Employment Bureau. And membership is steadily increasing. But it is impossible to get reasonable wages—paid overtime and decent conditions guaranteed—while there are women who can be got on the cheap to work for unlimited hours on the grounds that "films are like that anyhow."

I personally should like to know the opinion of other women A.C.T. members on a Women's Section—or at least a Women's Committee—to concentrate on specific women's problems and the recruiting of women to the Union. Such a committee could, for instance, work out a clear-cut definition of what activities each particular branch of work covers. In Continuity, especially, there is no hard and fast rule of what the job includes. It can be stretched to mean all the private correspondence of the director and his assistants as well as doing the firm's accounts. On the other hand, small companies will use their secretary as a Continuity girl and tell her to do the best she can even if it is the first time she has seen a camera larger than a No. 2 Brownie. A meeting called to discuss and outline the position of Continuity girls had a poor attendance. Obviously, it is difficult and a nuisance to come right up into Central London for a meeting in the evening, but a women's committee in the studios with one representative elected to attend a central women's committee ought to be a workable form of organisation. Women realise their helplessness as individuals—when faced with undercutting—to get a fair return for their work. But they have not yet understood that unity is the obvious remedy.

Alison Selby-Lowndes

PICTURES IN WARTIME

(*Continued from page 56*)

cartoons and are very similar to the news-reel theatres in this country. The most popular film personalities are Popeye the Sailor, the Four Marx Brothers and thirdly Fred Astaire and Ginger Rogers. Popeye seems to have completely captivated the Spaniards. All his films are shown, including many "primitives." Post-cards, toys and books about him are sold everywhere. Popeye's conversation in English is bad enough—but in Spanish!

There are several laboratories in Barcelona and a very good one in Madrid. They do not work night-shifts because if there is an air-raid at night all electric current is cut off, and it would be just too bad if a nice piece of negative happened to be about halfway through just then! The standard of work is fairly high, but it is not so good as that of the first-class labs here in England. The negative is turned out O.K. but they are a bit weak on printing, the grading often leaving something to be desired. A big difficulty with which they have to contend is bad chemicals; good material is very hard come by at the present time and the inferior brands that they have to be content with have great tendencies to form an objectionable scum on the surface of the baths. The laboratory in Madrid is one of the most up-to-date that I have ever seen; it is kept spotlessly clean and in good repair, and it has the most comfortable staff rest-room I have ever lounged in. Both in Barcelona and in Madrid the greater part of the equipment is Debrie—all the printing machines and the majority of the developing plant. In Madrid some of their apparatus has been stored in another part of the city so that should the works be hit by a shell, they may still have something to carry on with—if they themselves are left!

The Spaniards have, on the whole, the nucleus of a very fine film industry and it will be interesting to see how it will develop if it is given the opportunity to do so.

LAB TOPICS

(*Continued from next page*)

NEG CLEANER: Charmer with a sweeping movement, or he-man with gas mask.

VIEWER: One who views film, send send it back for reduction. For definition of *reduction,* see developer. For definition of *developer,* see viewer. Viewer to see oculist, says developer.

PRINTER: Refer to scratch—wrong lights—tear-ups. See Manager, then Exchange (Employment).

GAMMA

LAB TOPICS

FUMES IN LABORATORIES

The health of film laboratory workers should be the careful consideration of all lab managements. Every film lab should be equipped with an air-conditioning plant and up-to-date ventilation. This is the only way in which a continuous supply of pure air can be maintained.

Let us consider the fumes in different parts of a film lab: First, we have the cleaning department. When cleaning is done by hand, methylated spirit is used. Imagine working in a room where the air is practically stagnant, and fumes are rising from cleaning benches into the atmosphere as the spirit evaporates after being wiped over the film.

Then there are the developing rooms. When tanks are being cleaned, generous quantities of hydrochloric acid are used, the resultant fumes producing a choking sensation. Near by will be situated the chemical mixing department, with its preponderating smell of acids. In the positive joining and matching rooms amyl acetate pollutes the atmosphere, and in the printing rooms again acetate and the smell of unexposed film stock.

Furthermore, 40% of lab employees work all day long in a dim red or green light, their air supply may be coming to them secondhand from another room and perhaps be loaded with acetate or other equally unpleasant fumes. Do not such rooms demand some method whereby the air supply can constantly be renewed?

True, employers will tell you that factory inspectors on their regular visits have seldom found cause for complaint. Probably this is because they are more concerned with precautions against fire. Their chief worry seems to be whether fire bells ring and swing doors operate properly, and how much film is being housed in a workroom above the regulation footage. They concern themselves more with what *might* happen than with what *is* happening. It seems of little matter that workers are perhaps being deprived of fresh air for eight or more hours a day so long as they are safeguarded against fire.

All film laboratories should be equipped with air-conditioning plants and first-class ventilation, and there should be a Home Office regulation making this compulsory.

ANOTHER SUCCESSFUL CLAIM

A.C.T. has recently settled an important claim for one of its members. They approached General Film Distributors Ltd., claiming arrears of salary due and payment in respect of irregular deductions for National Health Insurance to one of its members who had recently been dismissed by the Company. The claim was successfully settled following conversations between Mr. Elvin and the Secretary of G.F.D., and a cheque for £6.10.0 has now been handed to Mr. Dyas, the member concerned.

The settlement places on record an important point concerning a common practice of many companies. A.C.T. has always contended that it is irregular to deduct from employees' wages a sum equivalent to the National Health Insurance benefit received. A County Court Judge has said: "The job of the National Health Insurance Acts is to enable an employee to be in receipt of wages and insurance because he needs more, and the benefits are intended to help him to get better."

The second half of the claim is equally important, as A.C.T. has always contended, with legal precendent, that an employer is not justified in stopping a servant's wages because of temporory illness so long as employment has not been brought to an end. Judge Mellor, K.C., ruled in Fordham v. Schwaldt & Co., that an employee is entitled to demand a salary during sickness, a ruling which has been upheld on many occasions recently. This is so, even when the employer gives the employee clearly to understand to the contrary.

AGREEMENT DISCUSSIONS COMMENCE

Laboratory members will be pleased to hear that the first meeting between the Laboratory Employers and A.C.T. to discuss a collective agreement covering wages and working conditions in laboratories has now taken place. The meeting was held on June 14th with Captain Paul Kimberley (National Screen Services) in the chair. Representatives of all except two of the laboratories were present. A.C.T. was represented by Mr. George H. Elvin (Secretary), Mr. Sidney Cole (Vice-President), Mr. R. Bartlett (General Council) and Messrs. H. Craik, F. Fuller and G. Hughes of the Laboratory Committee.

An official statement issued by Capt. Kimberley after the meeting stated:—

> *"A very good spirit prevailed at the meeting, and both sides realised they had a problem to face. We are getting down to it with the object of bringing about a really amicable agreement that would remove the possibility of any disputes in the industry—at least, so far as the laboratories are concerned."*

Capt. Kimberley also stated that the employers and employees present at the meeting represented 85% of the recognised film laboratories of the country.

Mr. Elvin, on behalf of A.C.T., associated himself with the above remarks, and it was agreed that no other statement should be issued.

It is hoped that a further meeting will be held shortly, when we hope to be able to give a much fuller report to our members.

GOOD ADVICE

At the Annual General Meeting of A.C.T., held on Sunday, May 8th, an address was given by Mr. H. H. Elvin, Chairman of the T.U.C. The gist of his remarks was that a large number of workers who join unions consider they have fulfilled their obligations by paying their weekly subscriptions, and expect to get all the benefits of trade unionism without any further effort on their part. This is true, we feel, of some laboratory members. Do your fair share of work—get new members—attend meetings—help to organise socials. Deputise for committeemen when necessary. Working for the Association as a whole you will, in the long run, materially benefit yourself.

ODDS AND ENDS

Who's the lab man that refers to the "gummy" side of the film?

"Humidity?" queried the printer, "we don't use it, old man. Try the developers, they're wet enough!"

(Continued on previous page)

POST OFFICE ON PARADE

ON April 28th, the G.P.O. Film Unit displayed its products with customary efficiency at the Piccadilly Theatre. Programmes were distributed by smartly turned out postmen, and the Secretary and myself were shown into the front row of the circle, a fact which shows that the documentary people really are realists.

The first picture was a display film showing the unit at work and we noticed Norman McLaren doing a masterly piece of cutting. He also directed the next film "Book Bargain," which explained the compilation and printing of the London Telephone Directory. "Mony a Pickle" was the next on the list and was made primarily for Scottish audiences at the Empire Exhibition, but I hope that other audiences will have an opportunity of seeing the excellent use of trick work in this picture. "Big Money" explained the vast financial transactions of the G.P.O.; a fine comedy touch, after showing the allocation of £75,000,000 for annual expenses to the Post Office, was an altercation between one of the Treasury officials and his office boy about the reason for the daily cup of tea costing 1½d. instead of 1d. The difficulties of laying a telephone line in the mountains were admirably dealt with in "Tschierva Hut," produced in co-operation with the Swiss Telephone Administration, and a novelty silhouette film "The Tocher" made by Lotte Reiniger was most entertaining. The programme ended with "North Sea," which, contrary to current practice, included in its credit titles a certificate of authenticity, and dealt with radio telephony communication between the various shore stations and the fishing smacks at sea. It was one of those really human documentaries that showed an unusual yet typical cross section of life and we take off our hats to the location crew for its excellent work in rough weather afloat.

The whole programme was most enjoyable and an effort will be made to include it in whole or in part in the next series of A.C.T. film shows.

T. S. LYNDON-HAYNES

A STUDIO & EQUIPMENT FOR SALE

The whirlwind of the "boom and slump" period left behind it a mass of wreckage that will not be straightened out for a long time yet. Much work will be necessary before the effects of the disaster can be fully assessed, but in the meantime it is important that someone should still have sufficient interest left in the affairs of 1936–37 to try and clear the lines as speedily as possible to let the waiting traffic resume its course, though not, we hope, the course of those two years.

There can be no doubt that the final estimate of the loss will be a high one, though the work of the wreckage cleaners will bring it down as much as possible. At the moment it is interesting to see how much has already been done in this direction.

One of our good friends, who is vitally concerned in this work, gives the following list of available material:— Cameras, Debrie Super Parvo and Bell & Howell, none of which have been much used, and one of them turned for a few weeks only on one picture, all of them in first-class condition; synchronous motors; a super-special zoom lens; and all necessary gadgets for the cameras; still cameras of several different makes; a whole stock of beautiful brand-new unused editing machines, microphones and booms, arm lights, cables, junction boxes, bought but unused stories and unshot scripts, dozens of films, complete and incomplete, and one whole studio with several stages.

So, Mr. Independent Producer, we add yet another service to the functions of the A.C.T., and can now supply you with practically everything but artistes—a story almost ready to shoot, a studio to shoot it in, the gear to shoot it with—need we point out that the prices will never be lower? And last in order though first in importance, the service we have always put in the foreground of our work—the supply of first-rate technicians who know how to use that gear.

Any enquiry should be addressed to the Secretary at this office, 145 Wardour Street, W.1., or by 'phone to Gerrard 2366.

THE MANOR HOUSE HOSPITAL

THE day of the voluntary hospital is, I hope, rapidly passing. One might weep a sentimental tear for an institution which has served us nobly for some hundreds of years, were it not that it has already outlived its use and stays but to hamper the growth of the municipal or state hospital and a national medical service.

The *Manor House Hospital*, however, which is, under the present economic system, in the nature of a voluntary hospital, points to the future. Instead of spending up to 6d. for every shilling it collects, as in the case of the voluntary hospitals, it lives on the regular penny a week from tens of thousands of trade unionists either as individuals or organised in their branches. This is not to say that acts of generosity are refused or that the hospital, which is ambitiously building luxurious new wings and buying the most modern electrical equipment, can dispense with such lucrative sources of income as fêtes, pound days, and football pools. But the subscribers who go there are not objects of charity: and they do not have to pay what an almoner can squeeze out of them at a time when they can least afford it. Everything they need is theirs by right. Whether this has a phychological effect on patient or doctor, the results are excellent. I found it quite touching to talk to some of my ward mates who had made a depressing pilgrimage from hospital to hospital in search of a cure and spoke of the Manor House as of Paradise.

The Manor House is not yet a perfect hospital. The cheerful nurses work, as everywhere, too long; and the patients are still awakened from their very comfortable beds at 5 a.m., in the old hospital tradition. There is, of course, no special provision for convalescence such as the trade union hospitals have in the U.S.S.R. But under a system in which a worker is unavoidably treated as a unit of labour, and therefore of little value when disabled by sickness except as an object of charity, the Manor House Hospital is a beacon for the future. When we run our own hospitals and give modern science its full opportunity to cure and keep fit all of our people, the Manor House will be in the honoured position of an old pioneer.

As a recent incumbent, I can't too warmly recommend members of A.C.T. to subscribe to it. It only costs a penny per week. In return members get free hospital treatment, as and when required, and dental and optical treatment at proportional rates. Your penny can be paid to your local Secretary with your A.C.T. subscriptions, or you can pay 4/4 a year direct to Head Office.

M.G.

MELIES EXHIBITION

From 24th May to 2nd June, the National Film Library held an exhibition at Mr. Ifan Kyrle Fletcher's galleries in Old Bond Street to commemorate the career of Georges Méliès.

The exhibition consisted of stills, documents, etc., arranged (by members of the G.P.O. Display Dept.,) in panels illustrating various aspects of his work. One of the most interesting showed the plan and elevations of the first studio, a glass building to which Méliès added prop rooms, dressing rooms, etc. The film industry has made great strides in building and technical resources since 1896, but Méliès's films compare not unfavourably with much of the modern product in appreciation of the possibilities of cinema, and their imaginative use.

Another panel illustrated Méliès's interest in contemporary events, with political cartoons and films of a left wing tendency, stills from his reconstruction of the Dreyfus case, and preparatory sketches and notes for "The Coronation of Edward VII." Most fascinating of all were the fantastic drawings on which he based such films as "La Fée Libellule" and "Voyage à Travers L'Impossible," and photographs and diagrams of the means by which he achieved his special effects. A 16mm. copy of part of "The Conquest of the Pole" demonstrated the actual working of these devices.

The exhibition was certainly eloquent testimony of Méliès's genius and of the cheerful and adventurous spirit in which he approached both his work and the vicissitudes of his later life.

It is to be hoped, however, that trade unionism in the film industry, of which Méliès was one of the pioneers, will secure that present day technicians do not have to spend their old age in similar hardship.

MAX ANDERSON

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A.C.T.'s. FIFTH ANNIVERSARY

Delegates from 25 studios, laboratories and newsreel companies, and free-lance members, were present at the Fifth Annual General Meeting of the Association of Cine-Technicians, held at Anderton's Hotel on Sunday, May 8th.

PRESIDENT'S ADDRESS.

THE HON ANTHONY ASQUITH, in his Presidential address, stressed particularly the importance of every key technician belonging to A.C.T., not only from the point of view of the Association—their value to us is obvious—but from their own point of view. Mr. Asquith said: "The attitude of the Ace-technician who says 'I am good enough to stand on my own. Why should I give my prestige to any Association?' is fortunately increasingly rare. Certainly the last year must have given one or two nasty shocks, but the truth is, I think, that almost everyone realises that we who work in British films are not a collection of individuals but depend on each other and on the state of the British Film Industry in general, and it is only by combining and organising ourselves that we can hope to have any influence on that state. And concrete proof of this can be found in the Quota Act. Unsatisfactory as the Films Act is in many ways, there is no doubt that it would have been very much worse but for the efforts of A.C.T. and the other interested Unions. I am convinced that any of you who had anything to do with our work on the Bill will support me—I am convinced that but for long, continuous pressure from us many of the improvements on the old Act would never have been obtained. They were not in the 1927 Act—they **are** in the present Act. There could surely be no more convincing proof of the value or organised opinion."

Mr. Asquith expressed the opinion that the Government, in its Films Act, lost a great opportunity of putting British films on a firm foundation. "It is surely obvious," he continued, "that merely to force foreign companies to make or acquire films in this country is in no way in which to build up a stable industry. The only man who has any right to protection is the British producer, and when a scheme was produced (the separation of Renters' from Exhibitors' Quota) which did in fact preserve a corner of our home market for the home producer, the Films Bill Committee turned it down. By all means let us tax the importer in terms of production—that any films should be made is certainly better that none should be made—but do not give him the opportunity of using this pseudo-British production, this cuckoo-film, to oust the British film from its rightful nest.

"Every film industry depends for its life not on its super-films but on its every-day bread-and-butter films, and it is like trying to build from the roof downwards to encourage chiefly the production of vastly expensive productions which can only recover their money (and this is doubtful) on American release, and neglect the film which can make its profit in the home market. Please do not misunderstand me. I am not a defeatest who supposes that no British film can have a world appeal. I am perfectly confident of our ability to produce such films, but I am sure that such films grow only naturally and healthily out of a rich soil of smaller home-market productions. From the point of view of A.C.T. there is also a further danger that the big expensive pictures may mean that technicians will be engaged on a picture-to-picture basis, and if this means, as seems likely, long periods of unemployment in between spasmodic periods of employment, the right type of persons will not be attracted to or remain in the industry."

[Film Press photograph

Anthony Asquith, re-elected A.C.T. President, snapped while directing at Pinewood Studios.

In conclusion, Mr. Asquith made a plea for all members to give their Association the power to be a benefit not only to ourselves but to the industry as a whole.

IMMEDIATE POLICY AND ACTIVITIES

Mr. Ralph Bond, on behalf of the General Council, moved a resolution (carried unanimously) on immediate policy and activities. Mr. Bond said "It has always been the policy and aim of A.C.T. to secure the utmost possible co-operation of all Unions and associations operating in the industry." A.C.T. hoped to follow up the inter-union agreement with the N.A.T.K.E. by a similar agreement with the E.T.U., negotiations for which were well under way. Reference was also made to the very helpful co-operation of the British Association of Film Directors and the Screenwriters' Association, in connection with the Films Bill, and it was hoped that these friendly relations would be maintained and extended to cover all matters of common interest.

CONTRIBUTING INSURANCE SCHEME

Mr. S. Hawes (Treasurer), in speaking to a resolution advocating a contributory insurance scheme, said that for some while the General Council had been paying attention to the setting up of some such scheme, and although it was fraught with difficulties he felt confident that before long it would be possible for some such proposals to be put before our members. The recent slump in the industry had shown the very great need for such insurance.

FRATERNAL DELEGATE

Mr. Herbert H. Elvin, President of the T.U.C., addressed the meeting and said, in referring to the new Films Act, that the Board of Trade had a very fine opportunity of putting the industry on its feet by freeing the British industry from Americanisation, but that to a large extent it had failed to grasp that opportunity. "I have known Mr. Oliver Stanley for many years," said Mr. Elvin, "in spheres other than that of President of the Board of Trade, and I want to say that from what I know of him there is no one who could doubt his sincerity. But I think it is very important, and should be remembered, that the greatest danger to progress is sincerity harnessed to misunderstanding. The Government in its original intentions no doubt meant well. Oliver Stanley expressed the desire, and emphasised it on more than one occasion, to bring about the maximum amount of benefit to the industry possible, and he believed that as a result of his measure that would be the case. But we who criticise the Bill feel that he listened more to the views of American finance controlling British interests than to the advice of those who know the industry and its requirements from personal experience. The Act is better than the Bill. And I think, very rightly, that you can take credit for much of the improvement that has been secured. A.C.T. itself should be congratulated upon the fine work which was put in by the membership in order to bring pressure to bear upon the Government. And there is no doubt that the improvements which have been secured are mainly due to the initiative, the determination and the whole-hearted endeavour of the leaders of your movement. In fact, I am satisfied that A.C.T. was the spear-head of the attack upon the Government. May I say, on behalf of the General Council of the T.U.C., that we were very pleased indeed to be able to associate ourselves with your efforts, and I hope that those of you who were connected with us in our collaboration with you will agree that even we can say we played a not altogether unimportant part in the role which we adopted to support the endeavours which you put forward."

ANNUAL REPORT AND ACCOUNTS

The Annual Report and Accounts, summarised in our last issue, were carried unanimously, after a general discussion on many of the points covered.

ELECTION OF OFFICERS

The following principal officers were elected:—President, Anthony Asquith; Vice-Presidents, Sidney Cole, Thorold Dickinson, Kenneth Gordon, Ivor Montagu, E. Thorne; Treasurer, Stanley Hawes; Trustees, L. Cave-Chinn, J. Neill-Brown; Auditors, Miss Toni Roe, A. J. W. Nurton.

* * *

THE ARTISTIC FUTURE OF FILMS

ON Wednesday, May 25th, the first "Peter le Neve Foster" Lecture was given at the Royal Society of Arts at 8 p.m. The subject was "The Artistic Future of Films," and was delivered by Mr. A. E. W. Mason. This choice of subject was appropriate because it was in 1853, Peter le Neve Foster's first year of office as Secretary of the Royal Society of Arts, that the Royal Photographic Society was founded as a direct result of discussions inaugurated by the Society. Incidentally it was not, of course, founded under that name, but was known as "The Photographic Society of London," which name was changed in 1874 to "The Photographic Society of Great Britain" and modified by Royal Command in 1894 to its present title.

Mr. Mason, in the opening stages of his lecture, dealt with the early history of picture production, mentioning that even in 1922 statistics showed that on an average the whole population of Great Britain attended a cinema show once a fortnight. Nowadays the film was even more an integral part of daily life and he stressed the value of the film as an educational and propaganda force but appeared dubious as to its value as an art form. He thought that the mechanical and industrial sides of the industry had received greater attention than the artistic, but followed this up with the somewhat surprising statement that he was unable to distinguish the voice of one newsreel commentator from that of another. He thought that the only reason that voices appeared to be different on the screen was because the eye was seeing different characters and though the theatre was in *"no danger"* from the cinema since the mechanical voice had not the same rapport as the spoken word, nevertheless Mr. Mason felt there was a fear of a generation growing up that had no knowledge of the *higher art* of the theatre.

In the adaption of a novel, however, Mr. Mason thought that the cinema had the advantage of the theatre because the latter was handicapped by the need for explanatory dialogue, but he appeared to support the view that most novels adapted for the screen suffered in the process. The author of "The Drum" felt that in the future authors would have to write for the screen in the first place and would have to have a large share in the direction of a production.

It was unfortunate that no discussion followed the lecture, otherwise Messrs. Sinclair Hill and Michael Powell who were in the audience might perhaps have replied to the more controversial of the speaker's remarks, and then I, for one, need not have left with the impression that the real title of the lecture should have been "The Artistic Future of Films, If Any."

T. S. LYNDON-HAYNES

Recent Publications

MY WIFE'S THE LEAST OF IT

By WILLIAM GERHARDI (Faber & Faber, 10/6 net)

The world of films is fair game for any novelist, and anyone who can cash in on it is perfectly at liberty to do so. Mr. Gerhardi does so. He does not realise, perhaps, quite how crazy a world it is, but that is no shame to him. His readers will no doubt regard as satire his very sober account of it.

This book tells of the attempts of one Charles Baldridge, a writer with one best-selling novel to his credit—a best-seller, alas, of many years ago—to sell the film rights of this same novel. In collaboration with a scenario-writer he prepares script after script; here, to satisfy the reported wishes of some producer, inserting an earthquake; there changing the heroine from an Irish colleen, or was it a London girl, to a darkie; now bringing the story up to date by including the Coronation. His scripts are never refused, everyone who sees them is keen on them—"as keen as mustard," his agent keeps repeating—but no one ever does anything about them. Mr. Baldridge's financial condition goes from bad to worse, and still the scripts lie on the tables of half a dozen producers. In the end, to everyone's relief, except apparently his own, he marries an extremely rich woman and spends the rest of his days in the administration of charities.

In unfolding this story, Mr. Gerhardi has achieved the seeming impossible. He has written a book in which none of the characters accomplishes anything definite in the whole 550 pages. Some of the minor figures, it is true, buy and sell film companies from time to time, but we never come upon them actually doing this. We just hear at second-hand that it has been done. To give Mr. Baldridge his due, he eventually performs two quite definite actions. He steals a pocket-book from the hated Gus Oppenheimer, supreme head of O.K. Pictures—or is it Super-Fine Productions Inc.—or both; and he marries the wealthy Adelaide Crosland. But even so he cannot be given full marks. It was less a case of Mr. Baldridge marrying Miss Crosland than of Miss Crosland marrying Mr. Baldridge. And after the marriage indecision evidently returned, for we are told that it was never consummated. Having, too, stolen Gus Oppenheimer's wallet in a moment of drunken inspiration, he proceeds in the sober light of the following morning to distribute evidence in the shape of bank notes amongst his creditors, thereby forfeiting his claim to be regarded as the "normal man," and qualifying to rank on the same level of lunacy as the other characters around him.

Perhaps this negative treatment is not such a bad thing. Film technicians, at any rate, accustomed to regard action as essential to a film story, may learn something from a novel of complete inaction.

But one questions whether Mr. Gerhardi was wise to choose quite so negative a story. He has been driven as a result to preserve the interest by forcing the humour, forgetting, one fears, his own assertion that "no one can be deliberately humorous." He wears down his readers with the same inevitability as the dilatoriness of the film magnates wears down Mr. Baldridge. But the reader will find that he has a keen interest in the fortunes of the various scripts and forges ahead as fast as he can in the hope that sooner or later something will happen to one of them.

In the end, and this may be useful to film technicians, we are introduced to organised charity as a method of making money, alternative, and even superior, to the films. And if Mr. Gerhardi's conclusion is that Charity is a bigger racket even than films, who are we to quarrel with that?

S.G.H.

A PRACTICAL GUIDE TO AMATEUR PHOTOGRAPHY

By Marcel Natkin. Coronet Camera Co., 2/6 net.

This book is, on the whole, very good. It contains an enormous amount of information, all of it useful, and it is almost inevitable, therefore, that it must be vague and sketchy in many places. Still, I think something a bit nearer the truth could have been managed on page 11, where the author says F 2.2 is half as fast as F 1.4, and F 3.5 half the speed of F 2.2, and so on. "Half" is really a good bit out. Still, in practice it hardly matters.

On page 117;—"a 'de-sensitised' plate or film cannot be fogged . . . the emulsion is no longer sensitive to light." It is true that a de-sensitised emulsion can be developed by yellow (or any other) light, but it can most certainly be fogged, notwithstanding, if too strong light is used.

On pages 85 and 86, why does the author continually refer to "super-charged" lamps by that name? Surely it would have been better to call them by the names by which they are usually known. In any case, does he mean "type K" or "Photoflood" lamps?

Also he is vague sometimes, when giving exposure instructions, about the kind of film pan, superpan or ortho, which the photographer is supposed to be using.

But compared with the large amount of correct and useful information, the few inaccuracies are of little account. The book is well-planned and laid out and easy to read. The illustrations explain points very clearly, and the diagrams are particularly ingenious and lucid.

W. J. McL.

WE MAKE THE MOVIES

Edited by Nancy Naumberg (Faber & Faber, 10/6)

Undoubtedly the most thorough exposition of the technical side of Hollywood yet written, the contributors all being experts in different departments. Its particular appeal is to the lay public but it's eminently readable to anyone.

Everyone describes his own job and one can particularly commend the chapter by Max Steiner, music director of Radio—the man who scored "The Informer." I say this without bias, for I am no musician. He lets us into little tricks of his trade, discusses the instruments he likes and dislikes for background music, the use of tempi to suit moods and to help out the pace of the film, using, for instance, quick music for slow scenes, and

then tells us how he breaks his own rules as often as not. He illustrates his points with part of the score he wrote for "The Informer." Other very interesting chapters are by Sydney Howard, who adapted "Dodsworth," Lansing C. Holden, the man who designed the colour in "A Star is Born," and Walt Disney's enthralling account of the making of Mickys, Sillys and Snowys. Throughout the illustrations are interesting and pertinent.

I was disappointed in the chapter written by Jesse Lasky, the producer. It was rather impersonal in tone and full of postulates for the ideal producer which we agree with but find platitudinous. Director John Cromwell's views about cutting are interesting, but here too there's too much of the impersonal. What does Mr. Cromwell think of his fellow directors or of the actors he's handled? Maybe one asks too much, but there's no harm in asking.

The actors represented are Paul Muni and Bette Davis. Excellent choices on their merits as actors. Muni tells us about the pains he takes to get into a part and Miss Davis tells us how much she looks up to and thinks of her public. Which is flattering to us all but dull reading. But amends are made by a number of technicians; the set construction of "Angel," the cutting of the "Crusades," the assistant director's work in "Bengal Lancers," are told of by the experts concerned. The head of Warners' sound department gives a thorough historical and, within the limits of a chapter, technical resumé of motion picture sound.

So that there really is something for everybody, including a helpful hint from Samuel Marx, story chief of M.G.M., for unknown storywriters to send their treatments direct to the scenario editors, naming them. On Mr. Marx's head be it.

Finally, Miss Naumberg heads a plea, endorsed by Sidney Howard, for a freer, more tolerant censorship and convinces us—or at least me—that Hollywood is fettered into the chains of story cycles by the manacling influences of world censorship and Wall Street capital, reinforced by the differing tastes of country and town, the hicks and the sticks. Which means that when a film *does* hit off with town and country alike, it automatically starts a cycle of like films, all playing for b.o. safety.

Put this book into the hands of your friends outside the trade and they'll stop asking you what back projection is, or dubbing, or tracking, or panning. Which is a very good reason for them all to read it.

NEIL TYFIELD

FOREIGN TECHNICIANS IN 1937

THE MINISTRY OF LABOUR REPORT for the year 1937 (*H.M. Stationery Office, price 2/- net*) gives the usual statistics concerning the admission of foreign labour into this country.

The report states that the policy of the Department during 1937 remained unchanged. The number of applications for foreign workers dealt with during 1937 was 24,431, over six thousand more than in any previous year. There were, however, less applications for film technicians. This is due, of course, as technicians will know, not to a change of policy by producers but through a slump which resulted in considerably less production.

Applications were, as usual, dealt with under two groups: (1) Permits in respect of foreigners who are abroad at the time of the application. These were dealt with by the Ministry of Labour. (2) Permits for foreigners already in this country, which are dealt with by the Home Office. The Ministry of Labour makes a favourable or unfavourable recommendation in each case.

In the first category 9 applications out of 62 were refused. In the second group 17 unfavourable recommendations were made out of 36 applications.

The following table shows the figures for the past three years:—

	1935 Permits		1936 Permits		1937 Permits	
	Granted	Refused	Granted	Refused	Granted	Refused
Group (a) ..	84	3	118	20	53	9
Group (b) ..	26	9	39	24	19	17
Totals	110	12	157	44	72	26

	1935	1936	1937
Percentage Refused	10%	22%	26%

A.C.T's. policy during the past three years has, therefore, resulted in a continual improvement. But the position is still far from satisfactory. Permits are still being granted to foreign technicians who are not superior, and in some cases definitely inferior to available British technicians. Representations to the Ministry of Labour will be continued during the forthcoming year with a view to still further improvements in the number of refusals or unfavourable recommendations, as the case may be.

G.H.E.

Indian Films Run 45 Weeks

"Runs of 45 to 56 weeks in one house are becoming a regular thing for Indian films being shown in India," states Mr. W. A. Bach, Managing Director of Western Electric, who has just returned from a survey of India and the Near East. "Production and story values in native pictures are improving and the popularity of the Indian film may create a problem for British and American producers if they are to obtain an increasing amount of business from this great and growing market."

"Native films are produced in two main languages, Hundustani and Tamil. Numerous dialects are used in sub-titles so that the audience always gets a comprehensive story.

"Second runs in many cases bring more money than first runs in India," Mr. Bach went on to say. "People go to see the same picture as often as twenty times. I was informed that in one small theatre in Ceylon, a first run drew 800 rupees, a second 1,100 rupees and a third 2,500 rupees. Admissions are down to a minimum of 4 annas, which great masses of the population can afford. Exhibitors running Indian pictures told me that they are making fine profits. Already the producers of Indian pictures are finding that they cannot get openings for new pictures due to these long runs. However, I am informed British films in India are expected to have their biggest showing this year."

"At the moment only one per cent of India's 300 millions are cinema patrons. As the habit grows, it needs only a two per cent attendance to make the country a veritable treasure cave for the film industry."

Mr. Bach found that following the introduction of Mirrophonic Sound, sales of Western Electric equipment in India have increased sharply during the past six months; since October a number of India's de luxe houses have installed or are installing Mirrophonic, among them the Metro, Calcutta; Pathe, Bombay, Palace, Karachi; Pathe, Rangoon, and the New Olympia in Colombo.

Technical Abstracts

MULTI-LAYER FILM SOUND TRACKS

An Interesting Method of Processing

An interesting Patent Abstract is published by the British Patent Office describing a method of processing a sound track on a multi-layer film negative. The Abstract is numbered 467,614—Photographic colour and sound films, Kodak, Ltd. (Eastman Kodak Co.), and is described thus:—

A multi-layer colour sound picture film has the sound track composed of silver sulphide and situated on the front emulsion layer. When the film is to be processed to a negative, the sound track is copied through a filter which cuts out light to which the lower layers are sensitive.

If the upper layer is blue sensitive, the copying is done through a blue filter, a yellow filter being disposed over the other layers.

If the film is processed by reversal two methods are used. In one method, the upper layer is copied as above and the under layers are then fully exposed to light to which they are sensitive. Upon reversal the under layers are entirely clear and the image is left in the upper layer only.

In the other method, the exposure light is such that it will correctly expose the upper layer and over-expose the under layers, *e.g.*, orange yellow light for use with an upper blue sensitive layer. The conversion of the sound track image to silver sulphide may be effected at any stage of the processing.

In the method described in Specifications 440,032 and 447,092, after development of all layers to minus red and fixing, the sound track is bleached to a silver halide or salt by an application roller and immersed in a solution of a soluble sulphide. Suitable bleaching baths are specified and include ferricyanides, copper chloride, iodine and chromic acid.

The film may also be exposed to gaseous hydrogen sulphide, the sound track being selectively wetted by a roller and water, passed through halogen vapour, and later through a mixture of ammonia and hydrogen sulphide, the gases being contained in long vertical chambers with suction devices at their upper ends. The humidity in the gas-toning operation is controlled to prevent edge-drying. The free sulphide is finally washed from the film by a spray of water.

Alternatively a liquid sulphide bath may be applied by an applicator roller and may comprise sodium sulphide, glycerine, quinone, and hydrochloric acid. Specifications 382,506 [*Group* XXXVIII], and 440,089 also are referred to.

—Kinematograph Weekly

LOW KEY LIGHTING AS EASY IN COLOUR AS IN MONOCHROME says W. HOWARD GREENE, A.S.C.

LOW key lighting can be even more effective in colour than in black and white, and is every bit as easy and as practical. When the three-colour Technicolor process was first introduced limitations in processing restricted the range of visual brightnesses which a cinematographer could attempt. Also much of the spot-lighting equipment used dated back to the pre-talkie days of orthochromatic film and "hard" light and there was a lack of adequate medium and low-powered spotlighting units. Consequently a good foundation of general lighting had to be laid—key and modelling lighting being built up as best one could. This often meant the use of more light and lamps than were desirable and limited the range of effects which could safely be attempted.

But now the spotlights used on Technicolor sets are markedly in advance of the types most frequently used on black and white production, ranging from the handy little 65 amps. spot to the 150 amps. Ultra H.I. Arc, all based on the Fresnel-lensed optical system, with smooth, controllable, and flexible beams. They burn steadily and quietly and only one need be used where two were formerly needed, which in itself broadens the range of possible effects. Laboratory processing has also improved in a multitude of details.

As a result, in photographing "A Star is Born," I found myself approaching parity with the lighting levels and balances the average monochrome cinematographer would use for the same scenes. In modern Technicolor, lighting can be flatter than in black and white since with the advantage of natural colour contrasts, lighting contrasts are not nearly so necessary.

This flatter—or rather softer—lighting is achieved by economising on the number of sources used and by restraining the amount of back and rim lighting used. Also we can now use smaller units—65 amps. for 90 amps., or 90 amps. in place of the 36-in. Sun Arc needed in "Becky Sharp."

In low key monochrome scenes it is often very effective to have relatively strongly lit actors moving in front of a dark background. This effect is even more striking in colour—the natural colour of complexions and costumes furnishing a striking natural contrast, without having to use back lighting in order to give separation from the background.

A normal illumination level gives a normal colour rendition—with less light colour darkens until with complete absence of light the most brilliantly coloured area can appear virtually black.

Balancing shadows in Technicolor is no more of a problem than in black and white. In fact between the more efficient lighting equipment used for Technicolor and the more natural lightings possible, modern colour cinematography is actually simpler than black and white.

—American Cinematographer

A HORN CONSISTING OF MANIFOLD EXPONENTIAL SECTIONS. H. F. Olsen.

The expression for the throat impedance of a horn with two rates of exponential flare have been derived. This expression is applicable to any number of sections by considering two sections at a time. The impedance-frequency characteristic of specific multiple horns shows the possibility of obtaining a large variety of impedance characteristics suitable for improving the efficiency characteristic over that possible with a single rate of flare. The efficiency of a horn type of loud speaker having a horn with three rates of flare shows an efficiency within a few per cent of the ultimate efficiency.

—Journal of the Society of Motion Picture Engineers

DIFFICULTIES OF SOUND TRACK PRINTING

Suggestions For Overcoming Shrinkage

Some of the difficulties of sound-track printing are discussed in papers in *Kinotechnik*. In the first, after comparing the relative advantages of constant-gamma and test-strip picture development, and the effect upon sound, the question of shrinkage is dealt with.

It is pointed out that if while the negative moves across the printing slit there is sufficient shrinkage to cause a relative movement between the two films of half a wavelength of the frequency recorded on the track, that frequency will be almost entirely lost, since every point of the positive will be equally exposed while traversing the printing slit.

Reasons For Losses

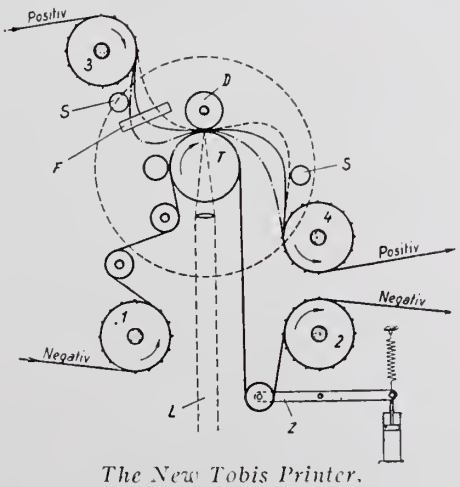
The high-frequency losses are dependent upon the shrinkage of the negative, the width of the printing slit, and the frequency to be copied. Curves are reproduced showing the relationship between these factors, which indicate, for instance, that using a printer slit of 4.75 mm. (3/16 in.) and with a 3 per cent negative shrinkage, an 8,000-cycle frequency will be attentuated by a little over 40 per cent of its original amplitude, a 6,000-cycle frequency by 38 per cent, and a 4,000-cycle frequency by 25 per cent.

These figures, however, assume a continuous slippage between the two films, which in practice is not generally the case; the slip occurs at intervals of one perforation. Further curves show the effect of this intermittent slip at 6,000-cycles in terms of different slit widths, from 3/16 in. to one-tenth of this width, the narrower slit naturally showing the smaller loss.

A compensation for a fixed shrinkage can, of course be provided by running the films over a drum. If the negative is shrunk more or less than the amount of compensation, there is then only the difference in negative shrinkage that affects the definition.

The Non-Slip Printer

The paper continues with a description of the non-slip printer, a subject which is further elaborated in the next two papers. The second summarises papers which have appeared in the *S.M.P.E. Journal*, while the third illustrates a printer embodying a similar principle, developed by Tobis. It is made under American patent No. 1,784,187, from which the appended sketch is reproduced.



The New Tobis Printer.

The sound drum *T* has a flywheel, and is driven by the negative film, which is damped and filtered by the system *Z*. The positive runs in contact with the negative under the pressure roller *D*, the length of loop, and hence the curvature of the positive, depending upon the negative shrinkage, as shown in dotted lines. The positive is guided laterally by the device F, consisting of one fixed guide and a spring-controlled roller.

Although the size of the pressure roller *D* may seem immaterial, it is nevertheless important in connection with passing joins. The most suitable pressure for this roller is about 1 lb. The width of the light beam on the film is 0.2 mm. and its angle 6 deg. A 6-volt 30-watt printing lamp is used.

The machine is fitted with a foot-numbering device and automatic light control. It has been in use in the Tobis laboratories since October, 1937. Tests made by printing negative perforations through to the positive have shown that there is practically no relative displacement between the two films affecting the synchronism of the track and picture.

Another new printer described is the Klangfilm optical sound printer, for reducing from 35 mm. to 16 mm. or enlarging from 16 mm. to 35 mm. The machine can also be used as a contact printer for either gauge of film. The feed of both films is very efficiently filtered. The printing slit can be varied from 0.01 mm. to 1 mm.

—*Kinematograph Weekly*

RECENT DEVELOPMENTS IN BACKGROUND-PROJECTION. G. G. Popovici.

The complexity of background projection is generally known. It has been widely applied in cinematography with great success. A new field offers tremendous opportunity, namely, still photography. Two types of background projector are described, one to cover screens up to 10 x 12 ft., the other up to 13 x 18 ft. The following elements of the problem are discussed.

(1) The spot condition: what causes it and how to reduce it entirely. (2) Screen texture: nitrate or acetate base sprayed with polarizing material for diffusion (flat-light type); the new Trans-Lux screen of the high-transmission type. (3) Theory of light refraction through screen. (4) Light brightness vs. diffusion of screen (5) Optical conditions, condensers, objective lenses, etc. (6) Light-source: brightness vs. current, behaviour of different types of carbons; spectral consideration in color projection. (7) Cooling the slides with refrigerated air. (8) Electrical and optical characteristics, remote control of arc, douser, air-cooling system.

—*Journal of the Society of Motion Picture Engineers*

A METHOD OF ENLARGING THE VISUAL FIELD OF THE MOTION PICTURE. B. Schlanger.

Recent trends toward the smaller sized motion picture audience indicate that new considerations can be given to the possibility of a larger and differently shaped screen, retaining the 35mm. film. The screen is pictured as completely occupying the entire forefront of the motion picture auditorium, assuming a space stage instead of an artificially framed picture.

—*Journal of the Society of Motion Picture Engineers*

The Pigswill Saga

Now at a very early age,
When Chaplin was upon the stage,
And Lubitsch only smoked a pipe,
And villains were a standard type;
When Sternberg looked like other men,
(He didn't wear a turban then!).
A curly-headed boy - that's me—
Would sit and watch in ecstasy.
Those dramas of the silver screen,
And gorgeous panoramic scene.
A young heart filled with ardent zeal
To learn this art, come what will;
To be a star—oh what ambition!—
Or even just an electrician.
Anything in fact would do,
A member of a camera crew,
Assistant to a something-sort-of,
'Cos clapper boys weren't even thought of.
So when in early teens, I went
And saw a most obliging gent,
In a studio far away,
Who paid me half a crown a day,
For opening doors of limousines
To glamorous stars and would-have-beens.

Until I got another job
At something nearing thirty bob,
For holding tripods, cleaning lenses,
And running errands, plus expenses;
Time went on, oh what progression!
Till there arrived a new digression:
Talkies, Quotas, then the Quickies,
Something happened to our "flickies."
Lots of guys with influence
And dough, but no experience,
Turned out feet and feet of tripe,
Though we got blamed—you bet yer life.
And other companies just grow'd
But where they went to no one know'd.
Well now you've heard this tale of woe,
Which ain't so bad as Sagas go;
And here we come to writing verse (?)
And doing drawings - even worse;
A far cry from that first ambition
To be a Star or electrician . . . . !

THE CINE-TECHNICIAN

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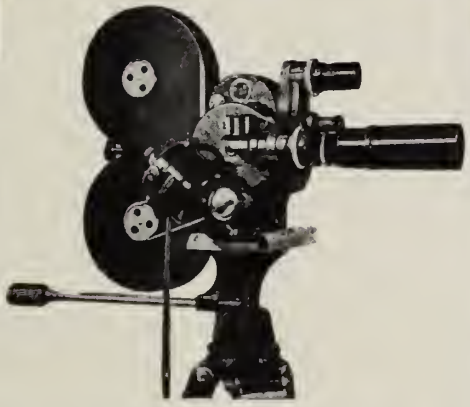

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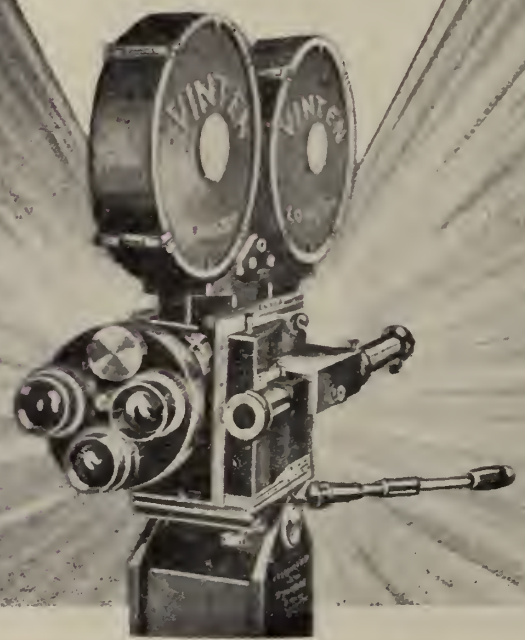

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NO. 17 1938 SEPTEMBER OCTOBER

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FRANCIS CARVER
GEORGE H. ELVIN
T. C. MACNAMARA
GEORGE PEARSON
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TELEVISION

by

T. C. MACNAMARA

A resumé of a lecture given to the Association of Cine-Technicians

[By courtesy of the B.B.C.
Henry Hall at Alexandra Palace.

TELEVISION has a certain amount in common with motion pictures in that both bring to the viewer the impression of a sustained picture, which is actually made up from transitory images reproduced on the screen with such rapidity than the persistence of the viewer's vision serves to bridge the gaps between successive images.

The similarity between the two processes, however, ceases at this point, on account of the differences in the media through which the images are produced. In cinematography, the moving picture is built up by projecting upon the screen a series of time-related still pictures, or "frames," each frame being a photographic reproduction of a complete scene, and being projected in its entirely by means of a beam of light.

Projected in this manner, the film constitutes a three-dimensional medium, being able to convey simultaneously two dimensions relating to area and the third dimension relating to density, and is thus admirably adapted to convey picture intelligence which is essentially three-dimensional.

Turning to television, however, the necessity arises for transmitting picture intelligence through electrical channels which are only capable of accommodating two-dimensional information. Considering the transmission of sound for a moment, no difficulty arises, as sound is limited to two dimensions—time and amplitude—and consequently can easily be conveyed through two-dimensional electrical circuits.

In order to overcome the difficulty, the process of scanning is introduced into television, with the result that the three dimensions are reduced to two, relative to time, and consequently the necessary intelligence may be conveyed through electrical circuits in spite of their limitations.

There is, of course, no limit to the forms of scanning which might be employed, but it is usual nowadays to divide the picture to be transmitted into a series of contiguous horizontal lines, starting at the top right-hand corner and finishing at the bottom left. Each line is traversed at a steady speed by the scanning apparatus, and at the conclusion of each line the scanning aperture returns with great rapidity to the start of the next line.

During the forward traversal of each line, the light reflected from each elemental area of the subject being scanned is caused to fall upon a photo-electric device, thereby setting up a current of electricity proportional to the brightness of the area in question.

At the end of each line traversal a "synchronising signal" is introduced into the train of electrical impulses, the function of which is to assist the receiver in the process of reconstituting the image by keeping it rigidly in step with the transmitter.

When the whole series of lines composing a complete frame has been scanned, by means of the steady downward movement of the frame traversal operating at right angles to the line traversals, a frame return stroke occurs, and the process is repeated once more from the beginning. At the same time a further synchronising signal is introduced to hold the receiver in step with the transmitter in the reproduction of successive frames.

The electrical impulses emanating from the photo-electric device punctuated periodically by the synchronising impulses, are suitably amplified and transmitted by radio in the form of amplitude modulation of an ultra short wave transmitter.

To reconstitute the picture at the receiver it is necessary to cause a spot of light to traverse a screen in the form of a scan in exact synchronism with the process of scanning at the transmitter, and at the same time to vary its intensity in exact accordance with the picture signals from the transmitter.

The choice of standards of definition is a matter of compromise, as clearly the desire to improve the quality of reproduction must be tempered with the realisation of the technical difficulties which any increase in the standard must inevitably bring in its train.

One of the most important considerations is to reduce flicker in the reproduced image. Here the experience in motion pictures may be taken into account, as a similar problem exists in this sphere. It is well known that a frame repetition speed of 24 per second is sufficient to give a good impression of continuity of motion, but is insufficient to give freedom from flicker.

In consequence, an artificial increase in flicker frequency is achieved by the use of a multi-blade shutter which has the effect of increasing the flicker frequency to perhaps 72 per second, at which value it is entirely invisible to the eye. It would of course, be possible to run the film at 72 frames per second, but this would result in a trebling of costs, and a quite unjustifiable waste of film.

A similar expedient is adopted in television, and takes the form of interlaced scanning. The actual frame repetition frequency chosen for the London station is 25 per second, but as a result of the use of interlaced scanning the effective flicker frequency is increased to 50 per second at which it becomes imperceptible to the eye.

In the process of interlacing, each picture frame is scanned twice, omitting every other line during the first scan, and returning to fill up the gaps between lines in the course of the second scan. From the eye's point of view, this process renders the flicker in the reproduced picture negligible, but it achieves this desirable effect without increasing the total number of lines scanned per second, i.e. the frequency band generated by scanning is not increased.

The choice of the number of lines of which each frame is composed is also a matter of compromise, for while it is quite clear that the greater the number of lines used, the better the detail of the reproduced picture, but the greater will be the band of frequencies generated, with a corresponding increase of the problems of transmission.

In the case of the London Station, it was decided that each picture frame should contain 405 lines, and that there should be 25 picture frames per second, interlaced, to give an effective flicker frequency of 50 per second. Scanning in this manner generates a band of frequencies extending to about three million cycles per second, and elaborate precautions must be taken to ensure that the amplifying and transmitting circuits are provided with a sufficiently wide frequency response to pass the signals without appreciable attenuation.

A further consequence of the very wide band of frequencies that must be transmitted is that the use of an ultra short radio transmitting wavelength is essential, as it its not possible at present to superimpose signals of the order 2½ to 3 million cycles per second on a carrier wave which has a frequency of less than about 40 million per second. This, of course, implies a wavelength of about 6 metres, and the enforced use of such a short wavelength limits the range of the station to a radius of about 35 miles.

The scanning and picture dissection at Alexandra Palace is carried out by means of the Emitron camera, a remarkable electronic device developed by the Marconi-E.M.I. Television Co. Ltd. The Emitron consists of an evacuated tube containing what is known as a "mosaic" plate, which possesses unique photo-electric properties. The plate is composed of insulating material coated at the back with a continuous metallic film, and at the front with a great number of photo-electric nodules, each insulated from its neighbour. The tube is also fitted with an electron gun, whose function is to provide a finely focussed beam of electrons, which is caused to scan the mosaic in the proper order by means of suitable deflecting coils located round the neck of the tube. The camera is also fitted with an optical system which forms an image of the scene to be transmitted on the mosaic screen. Coupled to the main lens is a similar lens for the view-finder which forms a duplicate image on a ground glass screen having the same dimensions as the mosaic, and which is observed by the camera operator. For general purposes two 6.5″ F 3 lenses are used.

When an image is focussed on the mosaic, photo-electric emission occurs, and those nodules situated in the bright parts of the image emit a proportionally greater photo-electric current than those in the darker parts. This infers that the mosaic elements become positively charged, the amount of charge being dependent upon the amount of light falling upon them; thus, as the electron beam is caused to scan the mosaic, it restores each element to its original potential by supplying it with electrons to make good the deficiency due to emission. In other words, the positive charge of each little nodule is annulled, and the capacity current resultant from so doing flows in a circuit associated with a continuous metallic deposit on the back of the mosaic plate. A voltage is thus produced in the output circuit of the Emitron, which at any time represents the brightness of that part of the mosaic then being scanned. The output from the Emitron is called the picture signal, and is initially amplified by means of the head amplifier situated inside the camera cover. The camera is connected to the control room equipment by means of a flexible cable which has an over all diameter of approximately 1½ ins., and contains 27 separate conductors in all. Two of these conductors are of the co-axial type, one of which conveys the picture signals from the camera to the control room, and the other the high frequency pulses associated with the scanning circuits. The cable also carries a telephone circuit which enables the producer in the control room to give instructions to the camera operator.

The Alexandra Palace equipment is capable of controlling six such cameras, two of which are permanently connected with the apparatus for transmitting film. The control room equipment enables the picture being viewed by any camera to be pre-viewed before being used on transmission. Furthermore, the pictures produced by each camera may be super-imposed or faded over from one to the other at will.

The studios at Alexandra Palace are generally similar to the average film studio in respect to the lighting technique employed, and incorporate sound pick-up equipment

similar to that used in ordinary broadcasting. Two separate transmitters are installed at Alexandra Palace, one for radiating the vision signals together with the synchronising impulses, and the other for radiating the sound accompanying the studio scene. These transmitters operate on a frequency of 45 Mc/s. and 41.5 Mc/s., corresponding to a wavelength of 7.24 metres and 6.67 metres respectively, and can be picked up on one and the same aerial at the receiver, where the vision and sound signals are separated and after amplification caused to control the receiving cathode ray tube and loud speaker respectively.

In addition to the transmission of studio programmes, the London Television service also includes a complete mobile television fleet for the transmission of events external to the studios; such events include the Coronation, Wimbledon, the Cup Final, the Armistice ceremony, and other national and sporting events. The Mobile Television fleet provides the same facilities for vision and sound as are available at Alexandra Palace, although of necessity somewhat limited in scope. The unit consists of four vehicles, into which are built:—

(a) A vision and sound control room capable of operating three emitron cameras and 6 microphones.

(b) A lower power ultra-short-wave transmitter for conveying the picture signals by radio to Alexandra Palace, where they are received on a special receiver and then re-broadcast from the main vision transmitter.

(c) A portable aerial and mast, designed on similar lines to a fire escape vehicle.

(d) A petrol engine generator plant for supplying power for operating the control room and transmitter. In some areas it is possible to convey an outside broadcast event back to Alexandra Palace without the use of the ultra-short-wave link transmitter and its associated aerial unit, since a special television cable network has been installed round the centre of London embracing numerous points of interest and sites of national functions.

When an outside broadcast it attempted from a point on the cable route, the control room van can be plugged direct into the television cable and the vision signals conveyed to Alexandra Palace via the repeater station at Broadcasting House. The sound accompanying the outside broadcast event is picked up by the microphone associated with the mobile control room, amplified there and then conveyed to Alexandra Palace by Post Office line. It is further amplified and then re-broadcast on the main sound transmitter at Alexandra Palace.

The present type of home television receiver provides a picture approximately 10 ins. x 8 ins., while certain table models are available which give a picture somewhat smaller in size. Modern cathode ray tubes give pictures having a relatively high order of brightness, so that it is not necessary for them to be viewed in a completely darkened room. It is generally considered that the present order of picture definition, viz., 405 lines, 25 frames interlaced, provides a very satisfactory picture quality.

All types of receivers are provided with adjustments for brightness and contrast, so that the viewer may derive the most suitable tonal gradation. In the first instance the question of the most suitable colour for the fluorescent screen for receivers was somewhat indeterminate, and a number of shades such as green, blue, and sepia made their appearance. The general taste, however, has now centred on a screen which gives a good black and white picture, such as is usual with the cinema screen.

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SHOT AT DAWN

A Few Suggestions for your first Lighting Job

by

[Lenare

FRANCIS CARVER

THIS article is going to be a very homely affair, and will have no technical pretensions at all, so first cameramen and lighting experts should take warning and read no further, unless it might be with an indulgent smile.

This is an essay on that moment of awful loneliness, when after years of earnest study of the work of the cameramen you have operated for, you suddenly find yourself in the middle of the floor, with a charge-hand at your elbow, and two dozen people waiting for you to say something. Your moment has come at last, you haven't an idea in your head.

And quite naturally so, for you are on unfamiliar ground, and have not yet had the chance to evolve a routine of working. So what I am going to try to do is to suggest the order in which you might tackle your problems, and indicate what might be your main consideration in each phase of lighting your first set-up. Of course, there are no hard and fast rules, you will soon hit upon a style and method of working of your own, so that the following plan is not intended to do anything more than to clarify your ideas about a moment when a clear head is all-important.

If your first feeling is one of frozen panic, and if all the observations and the mental note you have taken seem to have deserted you, stimulate the brain by getting back on to familiar ground. In short, start as usual to line up your shot. In any case it is a golden rule to light by looking through the camera, for this is the only way to work on the exact angle you are going to shoot. It is surprisingly easy to spend time on lighting something which isn't in the picture at all, and furthermore, if you are going to create a picture, you must work to your canvas

The next thing to do before you worry about the action of the scene is to light your set, and here the source of light is the most important factor; for in nine cases out of ten a set will "light itself" by building up from the source. In the case of a day sequence, then, the windows will be your first consideration, if there are any; if not, you will want to decide whether to use a window effect from an imaginary source outside the set. Nearly always a definite direction or source of light is a great help, since throughout the work on the set it provides a basic lighting idea which will help to keep your work clear and simple. If you are going to play for an effect from one of the windows striking the wall, it will show to best advantage on a plain surface.

So having placed your arc, you can go ahead and build up on it. This merely means that you are going to make the set look as if it was lit from the window, with two big reservations. The first is to maintain a sufficient photographic illumination all over, and the second is to give every shape in the set the treatment which is most effective to it. This last consideration begs the whole question of conscience in lighting, which everyone will solve according to his own style, but I would suggest as a basis to work from that outstanding features near the source should be lit from that side; but that if a piece of furniture, moulding or other feature further away from the source seems to demand lighting from the opposite side, that it can be legitimately treated in this way. After all, the first job of lighting is to give every shape in the picture its fullest value. The great thing is to avoid confusion or multiplicity of shadows. One clear shadow from each object will always give you the boldest, most natural effect; so when you set a lamp, be careful to see that it only does what you want it to, without spilling into and confusing other areas of light. As for balance of illumination, make sure that your window remains the brightest part of the set, and do not forget some gentle reverse lighting on the window wall.

If you find you have a night sequence to deal with, ask the charge-hand electrician to make the practicals alive and build up from them. How much of the set you illuminate, how big, as it were, your pools of light are, depends of course on the character of the set and sequence. You have the whole gamut from the mysterious, through the cosy, to the brilliant general illumination to play upon. But in any case that portion of the set which is brightly let must be well up to the standard of illumination.

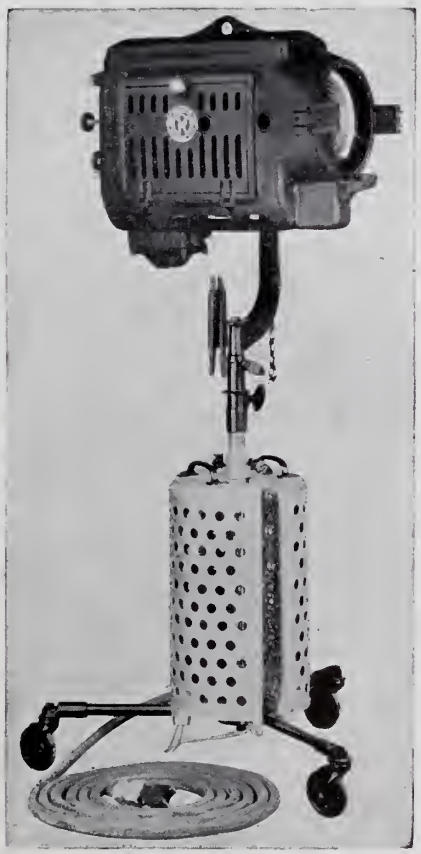
Now you are ready for your actors, and don't forget that the audience have paid to see them. It is tremendously helpful if you can get the director to rehearse

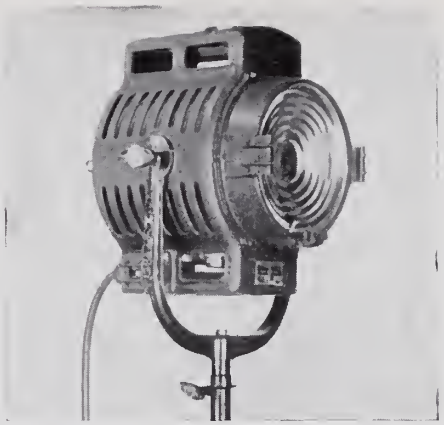
the action of the scene right through before you start to light it, for it is only by familiarity with the action that you can judge the importance of the scene, and decide how much time you can afford to spend on it.

If the director is working in long shot, you will be lighting figures moving probably through broad areas, and they can pass through your set lights without ill effect. If, however, you should be starting in mid-shot or close-up, it is as well to see that none of the set-lights are hitting awkwardly on to the actors before you start to light them, since it is sometimes difficult to trace the source of an unwanted lamp when you have a full lighting on. Also, remember that in a close-shot you will be lighting faces, and for this it is essential to know which way people are going to look.

There are really only three sorts of artistic lights; to whit, source light, softening light, and backlight. Don't overdo the backlight; except in special circumstances a brilliant halo looks old-fashioned and unnatural. The softening light should be low enough to avoid a double chin shadow. Remember that the higher your source-light is, the more mike-shadow problems you are likely to be involved in, so that it is as well to front light your artistes from the floor with a lamp which will go reasonably high, rather than from the rail.

In most cases the smoothest lighting is that which falls from the side of camera towards which the artiste is looking, since this gives a soft modelling shadow to the nose and cheek, and will allow you to lose or accentuate the jaw line as seems suitable. Sometimes it is possible to give two or more artistes an individual lighting in which each plays in his or her own separate lamp; but more often this proves too clumsy to be practicable, especially





if actors are close together, or if there is much movement. So your first decision will usually be as to who is going to "get the break" with the source light, in short, from which side of the camera you are going to play it.

In these days of mechanical development, when consistency is all-important, it is advisable to stick to one each of the various types of lamp which you decide to use for source lighting in close work. If the charge-hand puts a new globe in each, you will have a useful constant to work to.

Having lit your set and your artistes, you will want to see a hand-test as soon as possible after shooting the scene. Shoot plenty of tests at first, and study them carefully for consistency, and to strike your balance between faces and background. Don't forget that if your faces are overlit, the laboratory will have to print the whole picture down for them, and your background will become choked and gloomy.

Ironically these first efforts at lighting are usually on a production where speed is essential. This is disturbing, though in point of fact it is not quite such a snag as might at first appear. For one thing, the sets on such a picture are usually modest, and the time taken to light a set does depend partly on its size and the mere number of lamps involved. Furthermore, if you make up your mind to aim at simplicity, you should be able to achieve reasonable quality in reasonable time, and simplicity is a virtue to which you will find yourself returning as a result of wide experience. So for more reasons than one it is best not to embark on too elaborate effects, either in set or artiste lighting. A clear, lucid style, wherein the artistes' faces are simply but boldly illuminated, will leave you more time to polish and perfect your balance.

In the scale of economy, time is the biggest factor; but in many small ways you can consider the firm's pocket, especially if you work in full co-operation with your charge-hand, who is a powerful ally in this as in all other matters. Questions of lamp-line, and of rigging sets in advance can involve a big waste of time and money if they are not given forethought. And incidentally, when you have finished lighting a set-up, save your lamps; it is economical, proves to everyone that the unit is not waiting for you, and will gain you a reputation for decision.

A light-change during a scene will involve your electricians in a complicated re-plugging job which can run away with a lot of time, and there is nothing more

[Illustrations on this page by courtesy of Mole-Richardson

(Continued on page 75)

[By courtesy of Unity Theatre

A scene from "Plant in the Sun," with Paul Robeson.

PAUL ROBESON TELLS US WHY

when interviewed by SIDNEY COLE

At the Unity Theatre, a small home-made theatre near Mornington Crescent run by enthusiastic left-wing amateurs, international star Paul Robeson has just finished playing in an American play called "Plant in the Sun." The play made a strong dramatic appeal for trade unionism. Its moral is simple. Stick together or the man at the top will beat you in the economic bargain. The five main characters are workers in a packing shop of a big factory who decide to stage a sit-down strike because one of their number has been victimised for talking unionism. One of these characters was played by Robeson. But it was not a star part.

All this is surprising enough, but when we learn that Robeson has shaken the dust of professional stage and studio from his feet, and announced that he will confine himself to his concerts, except if and when he has such stories as "Plant in the Sun," surpise becomes vocal.

"It's a long story," Robeson said. "I've always held strong opinions about society, but I have never related these opinions to my job. I was just another actor. I didn't see why people should worry themselves about my outlook on other matters. At the same time I grew more and more dissatisfied with the stories I played in. Certain elements in a story would attract me and I would agree to play in it. But by the time producers and distributors had got through with it, the story was usually very different, and so were my feelings about it. "Sanders of the River," for example, attracted me because the material that London Films brought back from Africa seemed to me good honest pictures of African folk ways. The film has been criticised on the grounds that dressing up in a leopard skin I was letting down something or other. I looked at it from a different angle. Robeson dressed in a leopard skin along with half a dozen other guys from Africa, all looking more or less the same, seemed to me to prove something about my race that I thought worth proving. But in the completed version, "Sanders of the River" resolved itself into a piece of flag-waving, in which I wasn't interested. As far as I was concerned it was a total loss.

"But I didn't realise how seriously people might take the film until I went back to New York. There I was met by a deputation who wanted to know how the hell I had come to play in a film which stood for everything they rightly thought I opposed. That deputation began to make me see things more clearly. I hadn't seen the film, I was that interested. After talking to them I did go and see it, and I began to realise what they'd been getting at.

"The films I've made since then? The same story. An idea that attracted me, a result in which I wasn't interested.

"Why was the film version of "Emperor Jones" a failure? Partly because scenes in it were changed around from the proper psychological order of the play, and partly because the big episode, the long monologue in the forest, which had been built up in the theatre by the use of drums, was not played in the same way in the film. On the stage a drum became an actual character in the scene. The lines I spoke were dialogue addressed to the drum and answered by it. Only in that way could I get the necessary feeling to play the scene as O'Neill's writing of it deserved. We engaged an expert drummer for the part. But in the film, which I started with enthusiasm, I was told that of course we couldn't play the scene that way. We couldn't use the drum in the dramatic emotional way that was essential for me. Also the director had some fool notion that negroes had moods and could only play when they were in the proper mood. Consequently we played the whole sequence right through at once, which certainly didn't give me the right 'mood'."

"Meanwhile I was beginning to connect things up. My feelings about films in general and what I did in my job—this was a long process, mind—I was beginning to

feel couldn't be separated. At my concerts years back I had noticed the most genuine and enthusiastic applause always came from the gallery. The stiff shirts in the stalls liked to hear me sing, sure, but those guys in the gallery I began more and more to feel as my people. Those were the people I wanted to sing to and play to. And to play to them in stories that had some bearing on the problems they had to face in their daily lives. I was interested in those problems outside of my job. In future I wanted to concern myself with them inside of my job. That's why I decided to take no more offers until I could find that sort of story.

"Similarly, all my concerts in future will have a five-shilling top. At that price I figure more of the people I want to sing to will be able to hear me. My agent was a bit worried about my political appearances, but the fact is that they haven't hurt the box office."

Robeson wants to get back into films. He feels that the film is his medium. This may seem surprising to those who have heard him fill the vastness of the Albert Hall with a cheering audience. But he feels that in the intimacy of working close to the camera he can put over his personality more sympathetically and with less strain. But if and when he does make films they've got to be about the sort of subjects he wants, and no distorting of the original intention behind them. That involves, I suggested, a degree of control over the production personel that so far only the supreme Hollywood stars have managed to achieve. But Robeson is willing to stay outside until he can get it.

He has some good stories about the studios. "In one film I played in which also had plenty of flag-waving in it, a very well-known actor who didn't see eye-to-eye with me on social problems, turned out to be very race-conscious. He was much shorter than me and consequently always contrived when he was playing a scene with me to stand on a rock or something in order to bring himself up to my level."

Robeson has interesting advice to playrights. "White dramatists usually go wrong when they try to write a part for a negro character. Not unnaturally they tend to see him as a specialised person. This distorts the importance given to the character and makes him unrepresentative. Consequently my advice to dramatists who want to write plays for Unity, for example, is to write about a character they know in their own experience, an Irishman or a Welshman or a Cockney, then let me play the part and give it its special but not unrepresentative negro flavour. The part, for example, that I played in "Plant in the Sun" was written by the author as an Irishman.

And now Robeson feels that he's integrated his job and his feelings about society. Part of his feelings about films are due to this integration of outlook. To him he says, the film industry is the clearest example of the workings of capitalism—slumps, booms, speculation, over-production, and so on. It's all there. "You've only got to ask who controls United States Steel, who controls the Chase National Bank. And then you find the same guys control the film industry. And it's the same here in England."

"The workers in the studios have the power and they ought to realise it. During one of my films I was struck by this very forcibly. There was everybody on the set, lights burning, director waiting, head of the company had just come on to the set with some big financial backer to see how things were getting along—and what happened? Everything stopped. Why? Because the electricians had decided it was time to go and eat so they just put out the lights and went off and ate. That's my moral for your readers."

N.A.T.K.E PROGRESS

We have received the 49th Report of the National Association of Theatrical and Kine Employees. This Union started as an organisation of theatrical employees and upon the growth of the film business extended its activities to that industry.

Their Report shows a record year, with a 1938 membership of 16,000 as compared with 10,352 a year ago. It shows the very valuable work which this Union has done on behalf of its members, including a national agreement with the Cinematograph Exhibitors' Association for the first time.

Reference is made to the Film Producers' Federation and it is stated that there is no fundamental objection to a collective agreement for all studios with that body provided the conditions will not be less favourable than at present and the interests of members not adversely affected. Any attempt to take away established conditions or worsen them in any way will be met with the strongest opposition.

SHOT AT DAWN

(*Continued from page 73*)

irritating than to arrange a complicated change-over in long-shot, only to find that in cutting the switch happens in close-up. So that it is worth checking up on this point with the director; you may be able to save him a lot of time by covering the change in a close shot.

After a scene has been shot, it is important if you are limited for time to get started on your next set-up without delay. But if the director is consulting his script, you can usefully employ the time in saving locally the lamps which have been burning as artiste lights, and in checking any set lights which you have had to move, so that you will be quite ready to make a fresh start. A unit is inclined to take its tempo from the cameraman, so that if you waver, or change your mind unduly, your indecision will be reflected in the speed at which your supporters move. On the other hand, if you find that your lighting scheme is leading you into unforeseen complications, do not hesitate to abandon it at the earliest possible moment, for there is nothing more discouraging than to be anchored to a lighting which you know is all wrong. And finally, the most difficult way to remove a mike-shadow is to light it out. It will obstinately defy this treatment and upset the balance of your set lighting.

All rules are made to be broken, and there is not one axiom I have mentioned which you will not reverse a dozen times a day, with good reason. The cameraman you are working with now is solving these problems all the time, but the better and more experienced he is, the harder it is to realise that the problems are there, since he takes them so easily in his stride. All I have hoped to do here is to outline the sort of things you will want to know when your break comes along, so that you may study his work with a seeing eye and learn the answers from him. Put yourself in his shoes, try and think out the problem a few seconds ahead of him, and then see how his solution agrees with yours.

PEEPSHOW

by—

JACK WIGGINS

PEEPING into the past of over 40 years ago, I recalled my first job in animated photography. A job I obtained from an advertisement in a London daily newspaper—"*Youth wanted, with knowledge of photography, to operate automatic machine in dark room.*" Having a knowledge of photography from my previous situation with a large London firm of photographic printers, I applied and was successful, and started printing photographic records of current events, etc., for the "Mutoscope," a (reel) "Peep Show."

Chambers' definition of a peep show is "A small show viewed through a small hole, usually fitted with a magnifying glass." Well! That was the "Mutoscope," invented by Hermon Caster. The photographs were taken on an electrically driven camera called the "Mutograph," also by Hermon Caster.

These pictures were printed on one strip of bromide paper from 210ft. to 250ft. in length, 70 mm. wide. The machine used for printing these pictures was almost human—when anything went wrong with the negative the machine would stop automatically until the experienced operator put the trouble right. No ripping up of negatives or doing damage of any kind. The movement of the machine was intermittent and during the period of exposure punched a hole top and bottom of the picture for registration in cutting and mounting and to ensure steadiness.

These strips of printed bromide paper were developed on iron drums 6ft. long and 4ft. in diameter which were lowered into a shallow tank and the process continued till

Reading from top to bottom: King Edward VII; Point-to-Point; Dan Leno and Herbert Chapman; Wicked Willie: Why Marie Blew Out the Light.

complete. Then transferred to a wooden frame 6ft. high and placed in the drying room with continual changing of hot air by means of fans.

When dry the strips were wound in a roll and consecutively numbered on the back of each print. A foot press was used for cutting the strip into separate pictures, each with a notch on either side. They were then ready for mounting. The apparatus used for this purpose was two steel flanges, mounted on a wooden stand. The pictures were placed singly in the "Rig" with a plain card between each picture. These interposing cards were used for giving a spring to the picture when passing the "Tripper," a small gadget similar to the human thumb. Each reel was mounted in two sections and while still in the "Rig" was glued on the inside with a special white glue and strengthened with a piece of fabric known as "Leno." When dry the two halves were placed between metal flanges and screwed together, forming a complete reel. They were then "steamed" by a special machine and forced into a metal band of slightly smaller diameter. This gave the pictures the curve which made them flat when passing the "Tripper."

The reel is now ready for placing in the machine for exhibition. You screw the machines all in a row—you choose your subject—you put a penny in the slot and turn the handle. No regulation speed. Turn as you like. Linger or stop until the reel is finished.

If you were patronising these machines about 40 years ago most likely you would be looking at "Queen Victoria's Diamond Jubilee" or "The Return of Sir Herbert Kitchener from the Sudan." Other historic pictures seen on the Mutoscope were Pope Leo XIII giving his Blessing; the Great Volunteer Review on the Horse Guards Parade by King Edward VII, then Prince of Wales; the South African War, showing the departure of General Sir Redvers Buller on *s.s. Dunnottar Castle;* the departure of troops and the C.I.V.s; the German Battleship "Odin" with all guns in action; Joe Chamberlain and A. J. Balfour speaking at Blenheim Palace; Queen Victoria's Funeral, showing scenes at Portsmouth, London and Windsor; annual events such as the Derby and Grand National, etc.; the Spanish Royal Wedding, taken a few minutes after the bomb incident; a Spanish Bull Fight. There were subjects of a lighter type such as Dan Leno and Herbert Campbell playing cricket, and the two comedians editing the "Sun" Newspaper. Also "Wicked Willie," "Why Marie Blew Out the Light," etc.

There were Mutoscopes for the home as well . . . the "Parlour" and "Ophir." The latter was the kind taken by the late King George V, then Duke of York, on his tour on the *s.s. Ophir.*

The "Biogen" was the advertising Mutoscope—a much larger machine with an oval front fitted with four or five lenses. The mechanism was the same as in the hand model, but driven by motor. The "Biogen" was used for shop windows and exhibitions showing the advertiser's particular goods. For instance "The Spirit of his Forefathers," where the paintings on the wall came to life to share the whisky, and "You Dirty Boy." The "Biogen" was a valuable advertising medium.

Lumière's "Kinora" was very similar in principle to the Mutoscope, but varied a little in detail. The picture was made from a standard 35mm. neg., just half as wide as the Mutoscope picture, but was printed on a special rotary machine on a much wider and thinner strip of bromide. The whole width of paper was exposed, giving a wide black margin on one side of the picture and a narrow margin on the "Tripper" side. The processing was the same as the Mutoscope, with the exception that when going on the iron drum it had a celluloid foundation to prevent the thin paper from breaking when wet. After drying, the strip was blacked on the back to prevent backward reflection when being viewed, then cut and notched and mounted on brass flanges. The reel was viewed horizontally, whereas the Mutoscope was viewed vertically. The "Kinora" was operated by hand or clockwork.

This small machine was used for advertising also, and was ideal for the shop counter. Family groups were a great success, though rather expensive.

The "Peep Show" survives to-day and can be seen at the fun fairs and piers all round the coast.

Real Co-operation at Pinewood

The value of the closest studio collaboration between the members of A.C.T., E.T.U. and the N.A.T.K.E. was strikingly demonstrated at Pinewood recently. Owing to curtailment of the bus service between Uxbridge and the Studio, many employees, through no fault of their own, were arriving 30 and 45 minutes late, and, accordingly, losing time.

The shop stewards of the three Unions called a mass meeting in the canteen one lunch time, which was attended by some 200 employees and the organisers of the Unions. The meeting unanimously demanded that extra buses be put on and that the Company reimburse all employees who had lost time. A deputation of the Union organisers and the shop stewards interviewed the management and after an amicable and friendly discussion the demands were agreed to.

The feeling in the Studio is that this excellent result was only made possible by the unity of the members of the three Unions and that similar co-operation in the future is indispensable.

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A RAY OF HOPE

According to a "Times" correspondent in New York, on July 20th:

"The Department of Justice brought an action to-day in the Federal District Court here under the Sherman Anti-Trust Law against eight of the best-known film companies, 25 of their subsidiary or affiliated companies, and 132 individuals who are charged with controlling "from the selection of the story to the final showing in the theatre" 65 per cent. of the nation's film industry.

The Department is seeking to compel the defendants to divest themselves either of their ownership of theatres, or of their ownership of production and distribution facilities. It accuses them of dividing territory, pooling stars, exchanging directors, technicians and equipment, arranging releases to favour theatres owned by affiliated companies and of forcing independent exhibitors to sign inflexible contracts involving block-bookings and unfavourable showing dates.

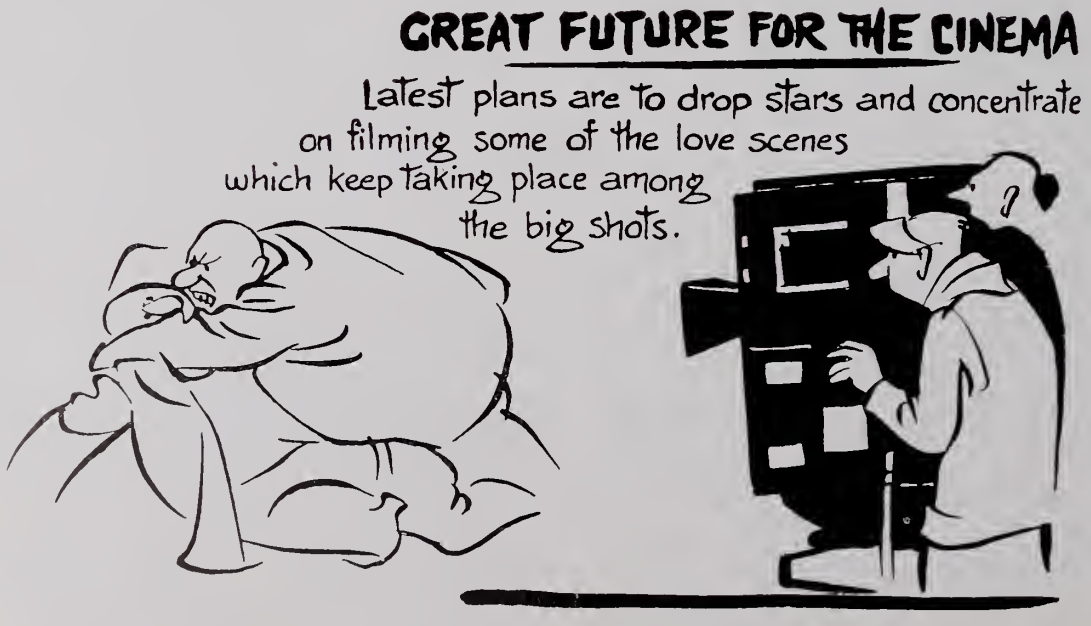
The principal defendants are Paramount Pictures Incorporated, Loew's Incorporated, the Irving Trust Company as trustees in bankruptcy for the Radio Keith Orpheum Corporations, Warner Brothers Incorporated, the Twentieth Century Fox Film Corporation, and the United Artists Corporation.

The Department of Justice considers this action to be so important that Mr. Thurman Arnold, the Assistant Attorney-General, who is head of its Anti-Trust Division, has come here to take personal charge of it. According to a statement issued by the Attorney-General this action "may settle questions that are vital in the application of the anti-trust laws to other industries in which manufacturers or producers, knit together through a common trade association, seek directly or indirectly to dominate and control markets."

Nurtured as we are on American acknowledgment of graft and racketeering, one might well conclude that the above action is due to pressure from some of the other "best-known film companies" who control part of the remaining 35% of the "nation's film industry." But let us be charitable and presume that it is a genuine attempt on the part of the Roosevelt administration to adjust the somewhat shaky condition of American industrial economics. Whichever way one looks at it, if the allegations are shown to be true, it proves that the "poor quality" charge, in itself largely due to propaganda, is not the only reason why British films have had difficulty in entering the American market.

Should Mr. Thurman Arnold prove his case and the action be successful, we technicians can only pray that British film interests will be fully alive to, and make the fullest use of, any advantages that may be gained in the American market from the weakening of the "monopoly." It would be as well for A.C.T. to follow closely the nature of the evidence disclosed in the course of the trial, for there are not wanting signs that in Britain, too, the same tendencies towards concentration of an unhealthy share of power in the hands of one or two big syndicates, are growing.

C.T.



[By courtesy of Low and The Evening Standard

FOREIGN TECHNICIANS

The following questions and answers were asked and given in the House of Commons on July 20th:

Mr. Sorensen asked the Minister of Labour how many foreign cinema technicians are now working with permits in this country and the maximum and average length of time allowed by such permits; and how many British cinema technicians are at present unemployed?

Mr. E. Brown: "According to the records of my Department the number of foreign nationals under conditions as to their stay in the United Kingdom who have permission to be employed as technicians in film production is 24. This figure does not include producers, directors, scenario writers and specialists in other than technical work, of whom there are 23 with permission to be employed at the present time. Permits for the employment of foreign nationals from abroad are granted for varying periods, in no case exceeding 12 months in the first instance, and are frequently limited to the duration of a particular production. With regard to the last part of the question, cinema technicians are not separately distinguished in the statistics of unemployment which are compiled by my Department."

Mr. Sorensen: "In view of the fact that there is undoubtedly a large number of cinema technicians unemployed, would the right hon. gentleman assure the House that no permits will be issued for foreign technicians while we have technicians suitable for the jobs?"

Mr. Brown: "Of course, that is my normal duty under the law, and it is carried out always in terms of each individual case."

Mr. Sorensen: "Is it not a fact that there are complaints regarding the number of foreign technicians?"

Mr. Brown: "There may be complaints, but complaints are not always well grounded, and those which receive most publicity are often the least well grounded."

We would point out in the first place that apart from the 47 mentioned by Mr. Brown, there are approximately another 30 who were previously granted permits by his department and have since become resident aliens or naturalized British subjects. We welcome them as fellow subjects, but their number should be taken into account when considering admissions.

Further, we differ with Mr. Brown's contention that no permits are issued to foreign technicians while we have technicians suitable for the job. We also take exception to Mr. Brown's statement that complaints which receive most publicity are often the least well grounded. In view of the fact that it is A.C.T. which lodges complaints as and when necessary, it must be pointed out that we are always very careful to be sure of our facts, and only to register complaints when we have very good grounds for doing so.

The present position in the film industry is such that unless there is an improvement it will be extremely difficult, if not impossible, for a large number of key British technicians to obtain employment again. In view of this serious position the Association asked Mr. Brown to receive a deputation of unemployed senior British technicians. At the moment Mr. Brown has refused to receive a deputation, but A.C.T. will continue to press strongly its point of view.

"N.S."

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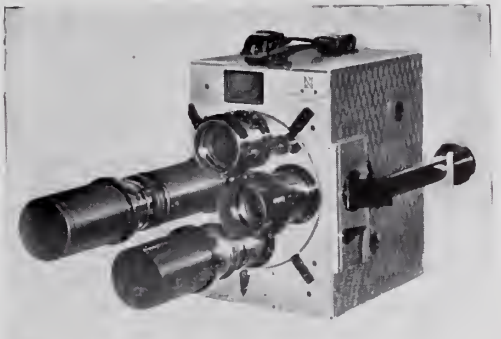

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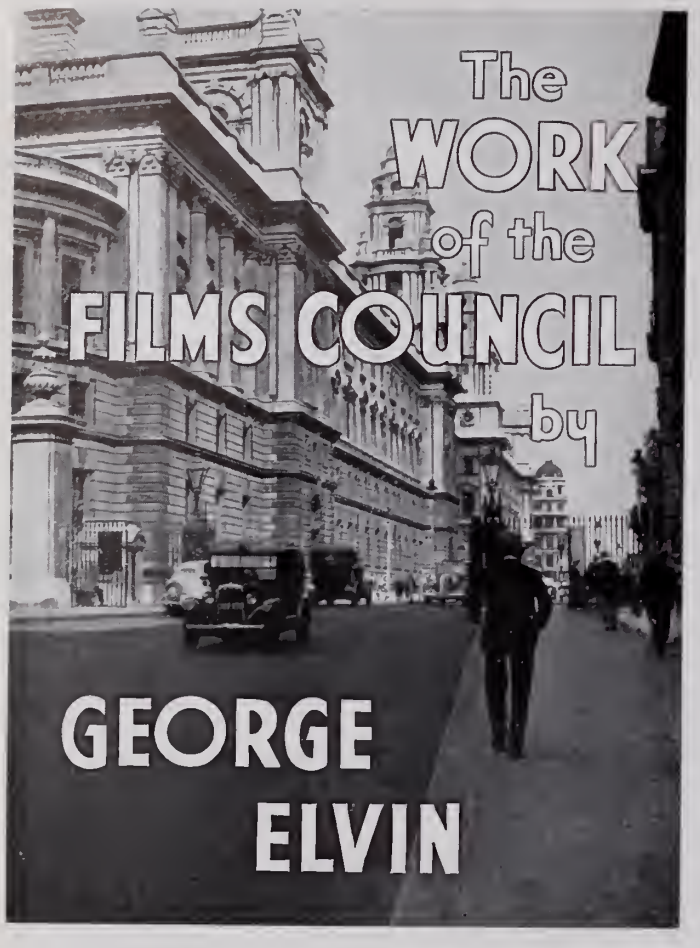

A FEATURE of the first Films Act was an Advisory Committee whose main function was to deal with quota defaults. All sections of the industry, and the Board of Trade, felt that a Committee with wider scope and powers could render much more useful service under the new Act. There was small support for the proposal (although it had considerable merit) of Mr. Tom Williams, M.P., that there should be a small commision of five members who should be independent and who would be paid for their services. The alternative of the President of the Board of Trade was eventually adopted with general approval. This provided for a Films Council of 21 persons composed of an independent Chairman, ten independent members, and ten trade members, two of whom were to be representative of employees.

The functions of the Council are:

(a) To keep under review the progress of the British Film Industry, particularly film production, and to report thereon to the Board of Trade as thought fit;

(b) To advise the Board of Trade when approached to do so by that department;

(c) To present an Annual Report to the Board of Trade.

In addition it should be noted that the powers given to the Board of Trade either to administer or to modify certain provisions of the Act can only be exercised after consultation with the Council. These include variation of quota rates; modification of the double and treble quota provisions; extension of cost and quality provisions (at present only applicable to long films) to shorts; granting a quota certificates on the grounds of "Special entertainment value" to films costing less than the minimum; and quota defaults by renters and exhibitors.

Furthermore, during the debates on the Act in Parliament, an undertaking was given from the Government side that two specific matters—an apprenticeship scheme and co-operative booking (not to be confused with co-operative *production*)—would be referred to the Council for consideration.

Experience alone will show exactly how wide are the powers of the Council. Personally, I feel that almost any matter in connection with the industry can be raised under clause (a) above. The Council should, therefore, provide an excellent forum for all matters affecting the industry, and on our side particularly (the technicians and workers engaged in it), which may arise from time to time.

So far there have been five meeting of the Council. I feel it is a pity that the press statements issued have been so meagre as it is to the general interest of the trade that they should be kept fully aware of the activities of the Council. Without giving any secrets away, I can say that we have during these five meetings viewed four films applying for renters' quota on the grounds of special entertainment value, although their cost was below the minimum statutory figure. We have reported to the Board of Trade on 19 Exhibitors' Quota Defaults and four Renters' Defaults. I have submitted a memorandum to the Council outlining the desirability of an apprenticeship scheme for consideration by the Council in due course.

We have received statistics as to films registered since the Act came into force. These cause me considerable alarm, and prove to the hilt the worst fears expressed by British producers and trade unions alike during our largely unsuccessful efforts to increase the quota rates. It will be remembered that 220 British long films were made last year. **This year, if production continues at its present rate (and compliance with quota does not need increased production), less than 70 long films will be made for renters' quota. Additional films for exhibitors' quota only will total about 30, making an output of approximately not more than 100 long films in all.** When one remembers that floor space in the British industry is equal to an annual output of 500 films, it needs no profound knowledge of arithmetic to appreciate that for the majority of technicians casual labour is the outlook for the next few years. Those that can will get out of the industry (and many have done so already); and those left behind will have one long struggle trying to make ends meet. Three or four months' work a year on the average (except for the lucky few) is the outlook.

The curse of production is, as I anticipated, double and treble quota. Under these provisions the 17 films made for renters' quota during the first quarter of the year rank as 30 for quota purposes. The key jobs on the double and treble quota films have in the main been filled by foreign labour and one of the films (which received a British quota certificate) was actually exhibited with the I.A.T.S.E. stamp on the credit title. A British film shown as made under the jurisdiction of American labour!

There is one further matter which will be of interest to members. I have been exchanging correspondence recently with the Secretary to the Council on the question

of labour costs as they affect "co-operative" productions. We were originally led to believe that all monies paid *or payable* to a technician could be returned as labour costs. That is, if a cameraman, for example, signed a contract to be paid £X in cash for his work on a picture and a further £Y as, if, and when further sums were received under a distribution agreement, then £X plus £Y could be returned as labour costs. It is obvious that such a course might lead to considerable abuse, and to heavy inflation of costs over and above the monies actually spent. The Board of Trade has now ruled that only money payable *in any event* (that is £X) is returnable for labour costs purposes. Money to be received out of certain proceeds (that is £Y), which may be problematic, cannot count towards the minimum cost of a picture for quota purposes. Further, if the amount returned in respect of a particular person does not seem to the Board of Trade to be a bona-fide payment, then again the excess will be disallowed under Section 27 of the Cinematograph Films Act. The Board of Trade's ruling on co-operative production is a very important one and will prevent possible abuses which otherwise would almost inevitably arise.

Mr. Oliver Stanley, in welcoming members to the first Council meeting, made reference to the old Advisory Committee and used the phrase "Le Roi est mort! Vive le Roi!" May we soon be able to say the same of film production. If so, I feel the Board of Trade, in consultation with the Films Council, must use to the full all its powers to stimulate increased production.

OUR PRESIDENT LEADS A.C.T. CREW IN ADDING PRESTIGE TO BRITISH FILMS

The triumph of "Pygmalion," directed by Anthony Asquith and Leslie Howard, has heightened as never before the prestige of British films and technicians. It is a pleasure to know that every member of the technical staff is a member of A.C.T. The crew were:—

Directors: Anthony Asquith and Leslie Howard.

Sets: Lawrence Irving.

Ass't Art Director: John Bryan.

Editor: David Lean.

Photography: Harry Stradling.

Cameras: Jack Hildyard.

Ass't Director: Teddy Baird.

Recording: Alex Fisher.

And while we are talking about our triumph it is interesting to note that Paul Holt, Daily Express Film Critic, has discovered that British technical crews can do their stuff. He says many nice things about them in his recent review of the film "This Man is News." Thank you, Paul. We have said many hard things to you while putting the case of the British technician. I am sure you are now convinced of their quality. And we look forward to your support which will help those of us who have yet to get their chance on major British films.

BELFRAGE IN NOVEMBER

In our next issue, we shall be publishing an authoritative article on Hollywood by Cedric Belfrage, the well-known film critic, whose recent novel on Hollywood, "Promised Land," has been so successful.

Agreement With The Electrical Trades Union

In pursuance of its policy of collaboration with the other Unions in the industry, as initiated with the A.C.T.—N.A.T.K.E. agreement, the Association of Cine-Technicians has now signed a similar agreement with the Electrical Trades Union. It comes into force immediately. The main clauses provide for mutual recognition of each other's problems, agree upon a demarcation line for the grades covered by each organisation, and set up machinery for co-operation on matters of common interest.

J. Rowan, General Secretary E.T.U.

Further, there is provision for the formation of a Joint Consultative Committee of the two Unions which will meet at regular intervals. Joint organisation will also be set up in the studios.

We look forward to an era of close collaboration in the industry which, like the previous agreement with the N.A.T.K.E., will be of benefit to both organisations.

* * *

FILM CONFERENCE AT LAMBETH PALACE

On October 7th, the Cinema Christian Council are holding a conference on the entertainment film. They will discuss its influence on the child, the adolescent, and the adult. Among the speakers will be Miss C. A. Lejeune, *Observer* film critic, and the Hon. Eleanor Plumer, a governor of the British Film Institute and a member of the Films Council.

DIRECTING IN DUFAYCOLOR

by ——

GEORGE PEARSON

WHEN sound came to the screen the zenith of cinematic art form seemed to have been reached, and only internal improvement in technique and apparatus remained for the future. Colour as an essential factor did not appear to threaten seriously the sovereignty of the black and white film. But patiently and persistently the colour experts have laboured, and during the last two years progress has been almost as startling as the previous advance in sound.

Colour has arrived. I believe that within two more years the non-colour film will be as great a curiosity as the silent film is to-day.

I was deeply impressed by the appeal of colour, and was extraordinarily fortunate in being given an opportunity to make an experiment in the medium through the generous support of Mr. Philip Greatrix and Mr. B. Savage. It was decided to make some colour-musical-shorts in Dufaycolor, since Dufaycolor could be shot with an ordinary camera, rushes in colour could be seen the next day, and studio work appeared to need but little alteration from ordinary black and white shooting.

We entered into the experiment with a profound belief in the future of colour on the screen and a keen anxiety to know the pitfalls, discover the technique by actual practice, and gain most valuable experience at first hand. Fortunately Ernest Palmer was able to join us as camera expert, and to him we owe more than we can adequately express; his experience, ingenuity and adaptability to new conditions, have carried us through many real difficulties. Major Klein of Dufaycolor has aided us throughout in every conceivable way through personal advice, and by placing at our disposal the service of his technical experts. Max Factor gave us every assistance in the difficult matter of make-up. We were fortunate also in the personal aid of Mr. Greatrix who has made colour a life study.

Well, we have made the experiment. We have discovered more in the last two months about shooting in colour than we could have gathered by years of theorizing or book-learning. We have struck a score of snags, walked headlong into pitfalls, made many mistakes, but have emerged richer in knowledge, probably poorer in pocket, but definite converts to the colour film as the screen pictorial medium of the future, indeed of the very **near** future.

The psychological effect on the unit of technical workers was remarkable. There seemed an amazing added enjoyment to the work; the whole attitude of mind was changed, widened, and stimulated. We looked for colour harmonies added to composition and this widened the vision delightfully, producing a strangely provocative mental joy that I am unable to describe adequately. I can truly say that after working in colour, the old monochrome work seems curiously dull.

In this we owe much to the fact that Dufaycolor is remarkable in its fidelity to the tints and tones of nature; what we saw with the eyes we got, if we obeyed the rules. Exterior work taught us much through the valuable, though expensive, experience of making mistakes, but each error left us with one more bit of knowledge and a determination to avoid repetition of similar indiscretion.

Studio work certainly gave us many headaches, all quite avoidable when you have appreciated the rules of the game. We found out lots of queer things about colour harmonies, types and volume of lights, make-up, changing angles, accidental colour reflections caught in movement, and wisdom in background colour selection.

Editing was at first a bit of a nightmare, for in that we found our greatest snag, colour-cut matching. But that led to a fresh interest in many technical matters inherent in the scenario of the colour-film. Undoubtedly in the scenario lies the main secret, for when you have assimilated the rules, your scenario will legislate for avoidance of most of the mistakes I have hinted at in this brief general record.

In the minds of all of us in this small unit there is one definite conviction. We are adherents to the colour-film. We believe that the conquest of the screen by colour is near at hand, and that in this conquest Dufaycolor will play a vital part. Direction in colour has added new problems to the director, but it has given him the joy of a wider vision, has opened up a vista of infinite dramatic possibilities, has increased his opportunity for emotional appeal. The last barrier seems to have fallen with the advent of colour, and I look back with queer memories over a lifetime associated with the screen, from the days when we went out and shot from the cuff, through a static camera with a fixed two-inch lens, no close-ups, a hard soot and whitewash picture, to these happy days with a mobile camera, amazing lenses, the capture of sound even in a whisper, and now Dufaycolor. The inheritance of the cinema technician of the future is indeed a happy one.

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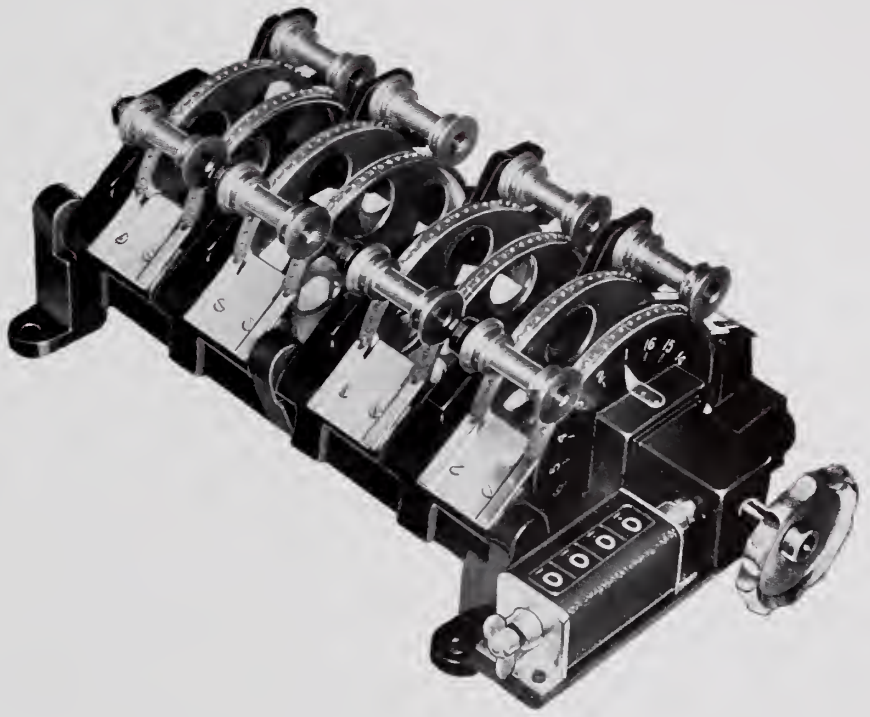

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Cinema Log

by KENNETH GORDON

Indian Film Industry on the Rocks

The Indian film industry, which has Rs. 150,000,000 invested in it, and employs 35,000 workers, is about to collapse unless sound financial support is forthcoming.

Two years ago there were over a hundred firms producing pictures in various parts of India, but to-day "Filmindia" declares only thirty companies are in regular production; seventy Indian production companies have closed down. Only five producers are free from financial embarrassments; huge debts threaten to wipe out the rest. This year India will only produce sixty pictures, against three hundred produced in 1935; this is to supply nearly 1,200 theatres.

The distributors acted as financiers to the trade, and have been charging as much as 40 per cent for this accommodation, and Mr. Chimanlal Desai, vice-president of the Motion Picture Society of India, declares that inflation of prices for cinema machinery, imported for the trade, have increased production costs. He states that prices charged are double the actual cost of landing the plant in India.

Other interested parties say that only six pictures were successful, and that native productions varying in footage from 9,000 to 16,000 feet and one film even 17,000 feet in length are boring and tax the nerves of native audiences. Audiences, they say, really demand a 7,000 feet limit.

Indian films, after twenty-five years struggling, have not been able to attract the type of money that finances other industries and thus break the yoke of distributor finance. Foreign competition, both American and German, in the renting and exhibition side, are claimed to be another responsible factor for the collapse.

Native pictures are rented on 50/50 terms, and good Indian pictures can make money; Prabhat's have continually made profits and have accumulated huge reserves. Quality and variety have been the keynote of this company's pictures; other companies, although good at their work, have made but little progress owing to lack of money. Prabat's Indian picture "The Unexpected" was shown at the International Exhibition of Cinematographic Art 1938.

The Motion Picture Society of India declares that the present trend of the Indian film industry should wake up the Indian Government, and it is time the Indian Industry was granted the immediate protection of a Quota Act.

Great indignation is being expressed by Hindus at the paintings in the new American-owned Metro Cinema, Bombay. These represent incidents from the Ramayana, and are stated to give a "sexy" portrayal of Seeta, the ideal Hindu woman, adored and revered by two hundred million Hindus. The latest importations from Hollywood are having a devastating effect on the Indian mind, and in a demand to tighten up the film censorship under the Hon. K. K. Munshi, several crimes committed in the United Provinces are blamed on American pictures whose sex implications are claimed to be a challenge to India's traditional ideas of sexual and social morality.

British Government Propaganda Films

With the continual insertion in British Newsreels of German, Italian, Japanese, Russian and Franco subsidised propaganda films and the success of U.S. Government documentaries, the British Government, through the Select Committee on Estimates, recommends that Government Publicity films must not only communicate facts but obtain a reasonable standard of entertainment value and succeed in being placed upon the screens of a wide scale of national cinemas.

The Committee points out that the Admiralty provides facilities for a selected firm, which limits expenditure to the purchase of copies and projectors. The War Office contemplates employing selected firms to make films at public cost; the Post Office, which produces films with its own technicians, would undertake the production of some films for other departments. The National Fitness Council contemplates subsidising non-theatrical film showings of existing films, and the Ministry of Labour puts films out to tender.

The Committee stated: "It does not appear to them that all these methods can be equally efficient and economical . . . enough attention is not paid to securing that films can be shown on their own merits to audiences in the ordinary cinemas." They recommend that a central advisory council should be set up. "It is evident that if expenditure is to produce films, not only to communicate the ideas or facts desired by the sponsor department, they must attain a reasonable standard of entertainment value."

Having seen the news films turned out by the totalitarian countries, I do not wonder that they find such a large percentage of footage in the reels, compared with our own ministerial selfconscious mouthings behind Lyons of Holborn's ornate table. The newsreel as a contemporary historian and the magazine films as documents have a potential influence on very large audiences, and the speed with which they can be produced, every three days for newsreels and weekly for magazines, allows for the rapid dissemination of Government information, but as these reels are commercial, the propaganda must contain both interest and entertainment. Educational, scientific and action programme films, as well as documentary, can all be used to further the knowledge of national affairs.

The A.C.T. with its vast membership of ace technicians who specialise in documentary films, is always at the disposal of any Government department interested.

Three-Dimensional Picture From Canada

From Montreal comes the claim that both still and moving pictures can be faithfully recorded in their original depth.

Roy Carmichael, in a letter to the "Cine-Technician," gives us the first news of the invention of W. N. Jourvorst who claims his pictures are taken with one lens, have depth, and can be viewed with the naked eye.

He is at the moment reluctant to explain too carefully just how he takes these three-dimensional pictures, pending his patent attorney's procuring him complete protection for his invention.

Mr. Jourvorst has many successful inventions; these

include a speed indicator to show people outside a car what speed the vehicle is travelling, fire alarm box that takes the finger prints of persons ringing the alarm, an apparatus used for recording telephone calls, a park-o-meter to show a policeman how long a car has been parked (our Wardour Street police need no meter), and a device to keep the motors of aeroplanes running after the petrol or ignition has given out.

We await the exploitation of his cinema invention with interest.

He Draws Sound Tracks

Working in an ultra modern studio fitted in the large rooms above a Victoria "pub," film technician Roland Kemp works day and night extending his sound library of hand-drawn sound effects.

Already he has over two hundred tracks completed; these range from organs, voices, steam jets, hooters, bubbles, to those strange noises so dear to the heart of the film cartoonist. In obtaining these very attractive tracks, which I had the pleasure of hearing, Mr. Kemp told me he has used as many as eight exposures, each one representing some particular sound or instrument. The results give a very full-bodied sound effect.

Working on a cartoon bench, he uses one picture technique, photographing by means of a Moy dowel pin camera, electrically operated and containing many improvements of his own invention.

The frame line has been a great drawback to the commercialisation of the process, but this has now been overcome.

Sound effects can be filmed by this process in any tempo or key.

Some of the hand-drawn tracks have been used in the General Motors' film publicising independent springing, to illustrate the fact that sound is vibration. Roland Kemp has promised the "Cine-Technician" he will write an article dealing fully with this very interesting subject.

The New Metropolitan Studios

Rising like Phoenix from the ashes of a disastrous fire, a brand new studio has been built down Southall way.

Constructed by the London Passenger Transport Board, the landlords, and under the direction of Reginald Fogwell, Metropolitan Studios contain both exterior and interior lots. The large floor is some hundred and thirty five feet by seventy, and is, I believe, the only studio floor to be completely covered with parquet flooring. The exterior lot measures two hundred feet by one hundred and eight feet.

In addition to the usual technical shops such as carpenters', plasterers', and electricians', there are first class cutting rooms and executive offices for the hiring production company.

The dressing rooms, both artistes' and crowds', are fitted with hot and cold running water, and a tasteful canteen provides food and rest for the workers

A large projection theatre and facilities for back projection are available. A very large collection of first class properties have been collected, and the modern sound and lighting equipment are in the final stages of installation.

Cameraman Roy Fogwell has already personally selected camera equipment, and will be available to help the studios' clients, although in general the hirers of the studios will be encouraged to engage their own camera crews.

Roy tells me that the charges for space will be very competitive.

Filming in The British Museum

It will be interesting to cine-technicians who may wish to use the very fine facilities offered by the Museum studio to know the rules for film photography approved by the Directors:—

1. Either (a) non-flam film must be used; or (b) if inflamable film is used the camera must be charged outside the British Museum;

2. Spotlights are not allowed: care must be taken not to overheat the subjects filmed;

3. The objects filmed may only be handled by the Museum staff;

At least 24 hours' notice should be given for extra lighting to be used. The Museum staff give most helpful service to those who use the studio, who will find the charges very reasonable.

The wonderful facilities available should make every user pay particular care to maintain the simple rules in operation. Their reward will be that helpful co-operation of the British Museum staff.

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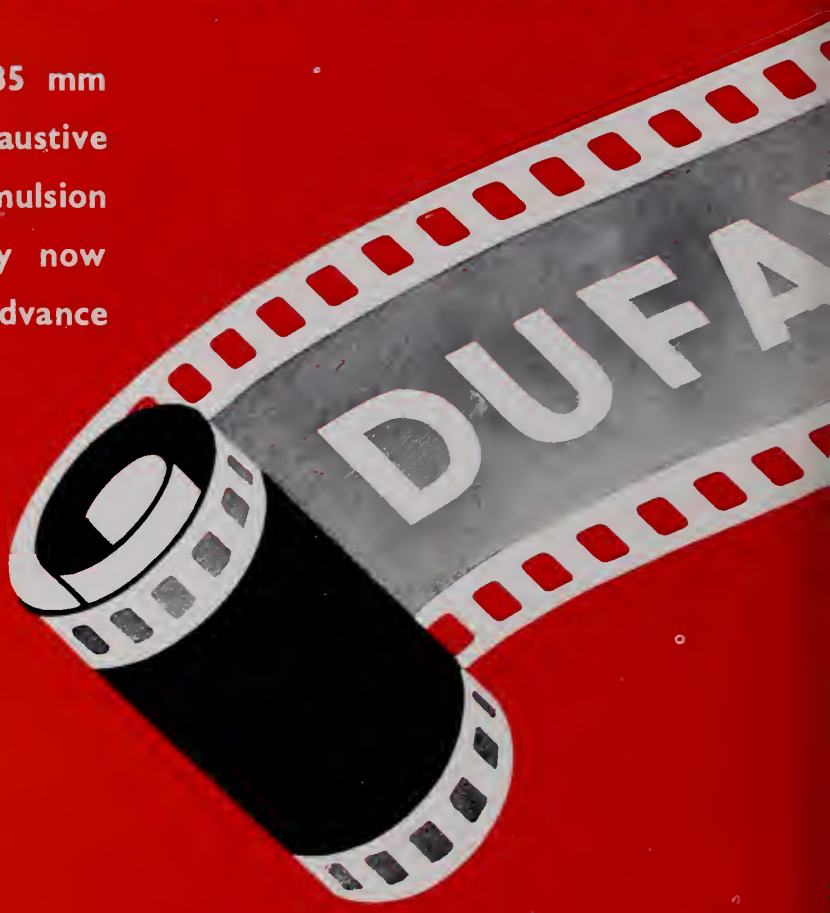

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- This *new* Dufaycolor is the fastest colour film ever made. Its speed is *20° Scheiner!*
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- The *latitude* exceeds that ever obtained by any other colour film, and is *three times* that of earlier Dufaycolor film.
- *The grain is finer* than that of any previous Dufaycolor film.
- *The colour range* is decidedly increased owing to exquisite gradation. Correct colour rendering now extends into the deep shadows and up to the highest lights.
- The *new* Dufaycolor film can be used with as great a confidence in exposure, and with the same economy of light and ease and certainty of operation as cameramen are accustomed to with black and white.

Now— THE WORLD'S FASTEST COLOUR FILM!

WHAT IS THIS BRITISH FILM INSTITUTE?

by an Official of the Institute

FROM time to time, as we of the British Film Institute go about our business, people come up to us and say: "But what *is* your concern, anyway, and what does it do? What is this National Film Library we read about?"

We get these queries—although, praise be to Allah, with rapidly decreasing frequency—from every conceivable type of person, from Mr. Jones of Tooting to the Rajah of Bong. And, of course, we are often mistaken for a film producing or renting company.

So just in case any of you readers of the Cine-Technician also have not heard of us, here are the answers in advance.

The Institute will be celebrating its fifth birthday next October. It was established as a Company Limited by Guarantee—that means, among other things, that it has no shareholders and makes no profits—as a direct result of a Report called **The Film in Naticnal Life** issued by the Commission on Educational and Cultural Films which deliberated from 1929 to 1932. The objects of the Institute, put broadly, are "to encourage the use and development of the cinematograph as a means of entertainment and instruction."

This phrase, of course, might mean anything, but in point of fact it has been carefully defined. In consequence it may now be said that the Institute's main functions are as follows:

1. To act as a "clearing house" for information on all matters affecting films at home and abroad, particularly as regards education and general culture. In this connection the range of questions we receive is wide in the extreme. They vary from requests from newspapers for details of such and such a film that was produced "just before" the war to queries from English, Empire and Foreign Government Departments on all types of subjects connected with films.

2. To influence public opinion to appreciate the value of films as entertainment and instruction. This, incidentally, does *not* mean that we are highbrow, but merely that we try to help—through lectures and our publications—the average man in industrial areas and in the country to shop for his films. We attempt to tell him in our Monthly Film Bulletin what the entertainment films of the month are about and whether they are good of their kind—i.e., whether they are good westerns, or love stories or dramas, and whether his children are likely to enjoy them. We never attempt to preach at him and tell him this film, although boring, is good because of its "art" or that that one, although thoroughly amusing, is bad because it is produced to succeed commercially. In addition, naturally, we try and review all the educational films as part of our service to schools.

3. To advise educational institutions and other organisations and persons on films and apparatus.

4. To establish a national repository of films of permanent value. The National Film Library, formed to carry out this object, is probably the best known of all the Institute's functions, and almost certainly the one by which it will be remembered in time to come. Founded in July 1935, the Library has already acquired about a million feet of film and this is being added to steadily.

It might, I suppose, be described as an embryo British Museum of films. At any rate it has acquired, or is attempting to acquire, as many as possible of all films which are valuable either to illustrate the history of the film or for general historical purposes. Like most similar institutions, it is hard pressed for money and has to rely for the most part on the generosity of the owners of films to present copies for preservation.

In this connection the Library has received very welcome co-operation from the great film companies which, with very few exceptions, give copies of their more outstanding pictures whenever requested.

And the results? Considering the financial difficulties under which the Library works and the short time it has been in existence, they may be considered very good indeed. The latest catalogue shows that film records are being preserved of such famous people as Lord Roberts, Earl Kitchener, Lord Baden-Powell, Lord Baldwin, Lord Beaverbrook, Mr. de Valera, Hitler and Mussolini, King Farouk, President Roosevelt, Mr. Anthony Eden, Sir Austen Chamberlain and Mr. Neville Chamberlain, Mr. Attlee, Mr. Ramsay MacDonald, Noel Coward, Miss Gracie Fields, Shirley Temple, Haile Selassie, Lord Nuffield, Fred Perry, George Bernard Shaw, King Edward VII, King George V and, of course, numerous pictures of every member of the present Royal Family.

Apart from records of famous people—and there are many more than those listed above—historical events of which films are preserved include the funeral processions of Queen Victoria and King Edward VII, the Coronation procession of King George V and the Coronation ceremony inside Westminster Abbey of the present King; scenes taken during the abdication crisis and during the recent royal visit to France, a comparison between Derby Day at the beginning of the century and in 1937; scenes from the Great War and the present Spanish and Chinese wars; the Delhi Durbar of 1912; a typical meeting of the League of Nations; the Cup Final in 1911, and many other such events.

In addition, as mentioned above, the Library also contains copies of most of the more famous entertainment films which have delighted cinemagoers since the days of the first "picture palaces." Among the most intriguing of these are " The Life of Charles Peace," one of the earliest story films to be produced in Britain. "Drame chez les Fantoches," made in 1908 and one of the first cartoon films, the first Mickey Mouse—"Steamboat Willie"—and the first Silly Symphony—"Skeleton Dance." There are also copies of famous modern feature films, such as "Blackmail," the first British talking film, " Elephant Boy," "The Private Life of Henry VIII." "Green Pastures," "Three Smart Girls" and many others.

The problem of the permanent preservation of these films—which are never, on any account, projected—is one

of some difficulty. In 1934 a special committee set up by the British Kinematograph Society at the request of the British Film Institute issued certain recommendations. These were briefly, that cellulose nitrate films—that is, the ordinary "flam" film—should be stored in non-ferrous metal containers, or in bakelite or fibre boxes to hold approximately 1,000 ft. on a core of not less than 2 inches diameter and in a temperature of not less than 33° F. and not more than 40° F. The films should be inspected at five yearly intervals, and, upon the occurrence of signs of deterioration, the films should be copied by photography and the copy stored in place of the original.

It is difficult to estimate the average life of an ordinary print, but it is probably about 30 years if kept carefully. At the end of that time it is almost certain that far more efficient forms of preservation will be available; it will be a reflection on our inventors if there aren't!

There we are then. It will be seen that the preservation of films under these conditions is a fairly expensive matter and the upkeep of the Library will always be high.

As a sideline, the Library has a Loan Section, containing at present 116 films, from which full members of the Institute may borrow at a nominal charge. This section includes a number of educational pictures and also copies, made with the consent of the donors, of some of the more important films in the preservation section. For example, a composite history of the development of the cartoon film—entitled "Drawings that Walk and Talk"—has been prepared containing extracts from early films. These are hired for private showings to schools, film societies and the like, but are not available to the general public.

Such, in brief, is the work of the British Film Institute and its National Film Library. The former, of course, does much other useful work too detailed to be mentioned here. The Library—well, that is where we look hopefully into the dim future when excited scientists, archaeologists and historians will decant carefully from their tins the ancient but accurate records of our present quaint old civilisation. If you want to imagine their feelings, just think what we would give now for a newsreel, however dim and flickering, of the battle of Waterloo or the beheading of Charles I!

From top to bottom:—The Life of Charles Peace, an English one-reeler of 1903-4; Drame Chez les Fantoches, one of the earliest cartoon-films, made in 1908 by Emil Kohl; Dante's Inferno, Italian three-reeler made in 1912—"the spirits of the luxurious tormented by a storm of wind."

[Stills by courtesy of The British Film Institute

"I WISH I COULD JOIN"

—— says Micky Balcon

The independent film producer now on the board of A.T.P. Studios Ltd. and a director of Capad.

Break for lunch at Rock's at 1 p.m.—'bus and tube to Ealing—see Balcon as per appointment at 2.30—stay till 3.15—return to Rock's by tube and 'bus—back on the job at 5 p.m. and have to work half the night making up the lost time—was it worth missing my lunch?

Unquestionably yes, if for no other reason than that I felt that I had met a man who intended to make *British* pictures and to make them good.

"Ask your questions," he said, "and if I know the answers, I'll tell you." "About your staff," I ventured, and he broke in:

"I have very definite ideas."

He spoke very rapidly and at times almost excitedly, with frequent takings-off and puttings-on of his glasses.

"D'you know, one of the greatest pities of the last two years, is the number of really good men who have been compelled for economic reasons to leave the industry. During the ten years of the last Films' Act, we had assembled a staff of native technicians in the British Studios who were second to none in their knowledge of their craft. At Shepherd's Bush, under an apprenticeship system, we had gathered a quantity of make-up people, for instance, who are now thoroughly first-class. Similarly there and elsewhere, with cameramen, cutters, sound engineers, art directors, so that today there is only need to import foreign technicians in very special circumstances and then the onus rests on the producer to make sure that the imported technician is the type that can teach something to our British technicians. One of the most remarkable things about the British technician is his willingness to be taught when he meets somebody of greater experience.

"Mind you, during the great boom period many of the so-called 'aces' who came from the other side were just names—as technicians Hollywood had no further use for them at all. They did not improve the quality of our product here and their names were of no greater value than those of our own people. There were many exceptions, of course, but whereas from time to time it may be necessary to import experts in the various sections of our business I do hope that the state of things that allowed so many incompetents to come in will never happen again.

"Look at the unit I am working with to-day—not a single foreigner on the technical side and only one foreign artist. Our next picture has not even the one foreign artist. My cameraman is Ronnie Neame, one of the best in the country. There are many others, too, still in the business, who have long passed the nursery stage and who are capable for doing the finest work in the world. I am very pleased with my British unit and I know that if other producers use similar all-British crews, they will have no reason to regret it. And I am going to go on using British crews, not for cheapness (although many of the foreign visitors were paid higher and often unjustified salaries) but because they're good. They are all trying, just as I myself am, to help Britain to make good pictures."

Balcon leaned back in his chair and for a moment raised a personal issue:

"You know," he said reflectively, "in the making of pictures I always regard myself as one of the crew, a technician before I am an executive. I think the main point here is that there have been so many executives who have not been technicians. My particular position does not qualify me as a member of a union like yours. In a way I wish I could join, but just the same you know that I am in sympathy with its aims and objects and it has always been a source of great pride to me that I have been accepted by my fellow workers as one of them."

"You do not regard the failures of the last two years," I said, "as being due in any way to lack of technical skill on the part of British workers?"

"Good Lord, no! On the contrary, the failure was due to the men at the top in practically every case. Any man who had enough money to go into film production, did so, not with the advice of the technical staff who could have given it; but against all admonishments they went their own way. Naturally, they failed and their failure brought discredit on others. But never, never on the technical staff. I think a lesson was learned through these failures, principally the lack of wisdom in the poor imitation of American-type product in the hopes that the American market could be captured. Whatever other companies may do, I am concentrating on what I think is our first obligation, the British market. There will be no big splash headlines about the 'millions' we are going to spend Our pictures will be made for whatever sum of money is necessary to make them good. If it takes only £10,000, then only £10,000 will be spent. But of course if it takes £60,000, then the £60,000 will be spent. As I say, our films will be aimed primarily at the British market, and if they bring anything back from abroad, particularly U.S.A., well and good. If not, we still hope to make them on such a basis that we will recover our costs in England alone. In future the point of guide will be not how much it takes to make a film but how little."

"And the type of story?" I queried.

"That I can't tell you much about. I could come out with all the usual platitudes about British stories and British backgrounds and it would be true enough, but seriously, I haven't given as much thought to the backgrounds as to the stories themselves. I am only concerned that they should be good stories."

At this stage I slipped in a remark about the co-operative basis of film production. Balcon seized on the point eagerly.

"I am in favour of it, highly in favour of it." he said, "for the man at the top. The executives and producers who back their own judgment in taking considerably less salary than usual, or no salary at all, during production, should be allowed to recover their money through the commercial success of their picture. In certain cases I would include the stars, or some of them, in a co-operative scheme. If they think that their popularity with the public is sufficient to bring their money in at the Box Office then they should be prepared to take the same risk as the producer and prove their worth by the takings. But I would never include in such a scheme the technical staff—no, sir, not the technicians. They get little enough even when fully paid for their job without being asked to lie out of their money for a considerable period.

"And the future? Well, many schemes are afoot. Many things may happen. We have been through a crisis and we have survived. We believed the British public want to see the kind of picture we know we can make. And we will not fail for want of trying."

J. N-B.

LAB TOPICS

DRYING THE FILM

To the amateur photographer drying the film is the simplest operation in the world; just hang it up and walk away. But to the technician engaged in drying 1,000,000 feet of film a week it is not at all so simple.

The processes of washing and drying are combined in the department, and to begin with, when the film is "dry" it mustn't be dry. A certain proportion of humidity must be left in the film (approx 15%) or it would be too brittle and would break too easily and wear too rapidly. To this end the temperature of the drying cabinet is carefully controlled and must be maintained at the required figure of 85° F. to 90° F. When the technician comes on duty, he must first check the temperatures, examine the cabinets in his charge to see that they are threaded or "laced" up correctly, adjust the water supply to the washing tanks, inspect the log book to see if any faults are reported on his units. He will then proceed with the daily routine clean-up, consisting of wiping over all parts of the machine and polishing any metal work, cleaning the glass doors of the cabinets, mopping the floor, etc. If, as often happens, the film is running through the machine he will carefully examine this; first at the inspection light or "light box" as it emerges from the dark room. He will see that both prints are on the film (picture and sound) and that they are of approximately correct density; that is, if either record is much too light or too dark he will immediately report to the dark room; he will also see the film is completely "fixed." Further on, as the film leaves the wash, he examines the emulsion surface for scratches or "frill." "Frilling" results from faulty alignment of one or more of the rollers over which the film passes and usually renders it useless. He then passes on to the "blower," a device for ridding the film of surplus moisture before it enters the cabinet, noting whether it is running through in correct position and the air blast is acting evenly and completely. The cabinet door is now opened and both sides of the film are inspected for damage; with the surface water removed and before the drying process is complete it is possible to see the most minute faults of all descriptions. It can be diagnosed with certainty here whether the fault lies with the developing or the printing machine.

The drying room operative must recognise developer scratches, printer scratches, oil marks, "rough edge," stains, sludge, bad contact, bad light changes, out-of-mask, stress marks, static, faulty coating, etc. Having assured himself that all is well so far, he looks to the "takeup" and sees that the tension is correct and that the last roller over which the film passes is rotating and not scratching. If he discovers any fault, he telephones the dark room to put the machine out of action and the mechanic's shop to come and put it right. By now he will have to take a reel off, put it in a tin, mark the machine number on the lid, and mark the reel off on the "tally." All faults on the machine have to be entered in the log book provided for the purpose. The date, hour, machine number, particulars of damage, and action taken all have to be reported.

He is also responsible, under the foreman's instruction, for the conduct of toning and tinting operations. He sees the film is toned or tinted to the specified depth, and maintains the bath at the requisite strength. Occasionally an over dense reel will be sent to him for reduction, when he will obtain the necessary bath and perform the operation.

From the foregoing it will be seen that the competent drying room man can save much time and material by keen attention to his duties and by giving early warning of faults. Much expensive damage is otherwise invisible until after development and drying and would continue until checked.

MEETING WITH EMPLOYERS

Further discussion between A.C.T. officials and the employers regarding the Lab. section agreement is taking place on Sept. 12th. It is expected that the talks will be concluded very shortly and the long awaited agreement signed. In this connection it is interesting to read the reports in the Press of the number of agreements concluded in other trades in recent months. One of the latest to be negotiated is between the Optical Makers Section of the N.U.D.A.W. and a private employer. Reduced hours without loss of pay, special overtime rates, holidays with pay, and recognition of the Union have been secured. This employer had developed a **price cutting policy** which was leading to keener competition between the manufacturers with the result that they too were attempting to reduce the wages and conditions of their employees.

A.C.T. is your only safeguard against similar actions in the Labs.

TRADE UNIONISM

Some of our members could with advantage examine the principles and practice of trade unionism more closely. To be a member of a trade union confers great benefits impossible of attainment by the individual. But it also incurs responsibilities for the individual; tersely summed up in the old tag, "each for all and all for each": read this slowly and absorb the full meaning. In other words, in spite of the apparent success of occasional bits of "smart alecking" it is quite definitely impossible to get "something for nothing." If you want to improve your pay and conditions, think also how you can bring improvement to the man working beside you, below you, and even above you.

Improvement will certainly come, but it can only come for all. Stop thinking quite so much about your own job. Take a glance at the other fellah, he may be worse off than you. Your "rights" are just as important as anybody else's; but not more important.

Take a look, while you're about it, at the illustration to the story on another page of the T.U.C. Exhibit at the Glasgow Exhibition. That shows you what can be done.

PRINTING SOUND

Comments on the excellent quality of sound reproduced by 16 mm. by optical reduction from 35 mm. negs. reopen the question of 35mm. printing by optical means. The problem dealt with here is that of "slip." Printing optically allows more perfect compensation for neg. shrinkage. Other means of eliminating "slip" are by using the neg. to pull the pos., as in the R.C.A. U.V. Printer. The neg. is approximately .001 mms. per inch shorter than raw stock. So in 1,000 feet 12 inches has been allowed for. If "slip" was completely eliminated in contact printing we should be 12 inches out of sync. at the end of 1,000 feet. There seems to be something to be said for optical reproduction. GAMMA

THE ARMY OF THE INEPT

We reprint the bulk of the anaylsis of motion picture production adopted by the Screen Directors Guild in Hollywood recently.

IT is the firm conviction of the Directors Guild that rehabilitation lies, first, in changing the present "system of production" which pervades the industry, namely, eliminating the involved, complicated and expensive system of supervision which separates the director and writer from the responsible executive producers, which practice has steadily lowered the quality of motion pctures through a number of years.

No director questions the need of executive supervision, nor are the directors endeavouring to tell the producing companies how to run their businesses, and in referring here to executive personnel who are engaged in supervision of creative work in both "A" and "B" pictures no director questions the contribution of many individual producers who have given prodigiously to the industry. These men need no identification. Their contributions speak for themselves, and of them we have no words but praise and recognition for their accomplishments.

We speak here of the army of the inept, who have been promoted to positions of authority for which they are unqualified, inexperienced and utterly lacking in creative ability. A survey of the major studios has revealed that 40 per cent of the cost of production is represented by overhead and miscellaneous. Never in the history of the industry has this cost been so high. We believe that it is to be explained by the "system of production" described above.

Even within the other 60 per cent is to be found a record of uncertainty, duplication and waste that characterises the present "system of production." There is no desire on our part to absolve the director of some of the responsibility, and one of the intentions of the Screen Directors Guild is to undertake self-discipline, which the overwhelming part of the membership is eager to undertake for the good of the industry. But we must emphasise that the larger responsibility rests with those in executive positions of power. The director finds himself very often actually carrying on wasteful and costly practices because of the present system.

PROBLEM OF SUFFICIENT PRODUCT

In recent years most studios have faced an ever-increasing difficulty in meeting their release dates, and have fallen short of making the number of pictures yearly contracted for. This in spite of the increasing number of producers and associate producers. In large measure this can be attributed directly to the growing estrangement between the producer and the director on the one hand, and the director and the writer on the other.

Let us be factual for a moment! Following is a brief summary of findings covering the position of the director today—in comparison to ten years ago! The most alarming and significant fact uncovered was the amazing increase in the producer class during the decade.

	1926-27		1936-37
DIRECTORS with Feature Credits	246	...	234
PRODUCERS, including Supervisors and Associates	34	...	220
	1927		1937
Feature American-made Releases	743	...	484

800 per cent more producers to produce 40 per cent less pictures.

There are 60 directors with 1936-1937 credits who were directing pictures in 1921 and earlier.

It would seem but natural that the director whose greater knowledge of the mechanics of the picture and the actual working conditions on the back lot can ease and hasten stories and scenarios through many difficult situations, and whose trained and experienced mind can foresee many of their "retakes" and obviate them.

Times without number when the producer has prepared a story without assistance or advice of the director, situations, stunts, and scenes are incorporated into the script which are either impossible of satisfactory achievement, or involve an expense out of all proportion to their importance to the picture.

In many of these instances, had the director been present, he could have brought this to immediate attention and suggested mechanical alternatives that would have expedited the writing and facilitated the shooting.

STORIES IN VAULTS

Let us analyse this present "system of production" even further. Millions of dollars worth of story properties are in the vaults of studios. Much of this material never was of any value, much of it never will be of any value, and most of it was the ill conceived product of the unqualified.

A great portion of this money is tied up in fully completed screen plays which will never be made. On many of these dozens of people have worked to no avail. In the great majority of cases no director has ever scanned a single line. This is a waste of money.

Of these properties enough has been said—but one last statement must be put down, namely: that of all the people in the studio the directors have not been asked to go over this material for salvage and reconstruction.

Weekly conferences on production take place in every studio. Here production questions relating to scripts to be bought scripts on hand, scripts in work and general policy are discussed. In a large majority of instances the directors are not invited. The directors would be happy to give of their experience to such meetings.

Millions of dollars worth of fresh material is now, at this writing, being readied for the cameras. It is being cut into many parts, in accordance with the practice of subdivision of labour. The one man who, in the great majority of cases, has nothing to do with the preparation of the material is the man who will finally have to direct its exposure on film. Because of the separation of the director and the writer, when a script is finally handed to a director, he often finds in it an accumulation of writing done to order with little clarity or entertainment value which he must attempt to infuse with life without changing a line, a scene, or coming in behind schedule.

In the making of "B" pictures these conditions are even more prevalent and are aggravated by the fact that the economy of production is paramount. In the majority of cases the men in charge of these pictures are utterly unqualified. They have little respect for the medium, less

(*Continued on page* 94)

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GERMAN FILMS IN BAD WAY

Compared with 1932, German feature film production has fallen off by half. At the same time, imports of foreign films have been reduced by scarcely a tenth. With the vain attempts to recapture the world market, the average production cost for a feature film is about doubled. Independent producers have been almost ruined and production has played almost exclusively into the hands for the three large concerns, Ufa, Tobis and Terra, who for their part are able to keep their heads above water only by means of help from the Reich in the form of loans, grants and shares. The entire production programme is controlled by the business interest of the large concerns, i.e., 95 per cent of the films are "super" productions, which are outstanding chiefly by reason of extravagance.

Dr. Goebbels declared in a recent speech that "the German film, with all its accomplishments, may be presented on the world market with confidence and expectation." To this Gerhart Weise replies, in a special number of *"Wille und Macht"* (Purpose and Power)—chief organ of the Nazi Youth—"We are groping about blindly, as if the usherette had forgotten her torch. The representatives of the film industry assured us that they wanted to help build up the structure of German films. We saw later, with a few exceptions, on seeing their work, how quick and clever they were in misunderstanding the book of rules . . . . The film genii whom we await are not there at the moment, or if they are, the present conditions of the film industry have for the time being blocked up all the ways by which they might make their appearance . . . . The film has cut itself off from life . . . ."

Dr. Goebbels explained further that "the productions of other countries are, at most, not any better than ours, but just different."

To this, Hans Karbe (film critic of the *Essener National Zeitung*) says in the same paper:—"France's production lies streets ahead. *La Grande Illusion*—honour to whom honour is due—is one of the year's works of art of international importance." (This film was forbidden in Germany by Goebbels). "England comes almost up to French standard, with four good films." (Karbe gives as an example of one of the excellent English films *Farewell Again*, the work of Erich Pommer of German origin). "America, as ever, is the battlefield of the world film war. We must acknowledge the superiority of the place whence sprang creations like *The Good Earth* and *Mr. Deeds*, films which have a poetical brotherhood with other living things. Here the balance between technical and creative achievement is attained, the welding of knowledge and art."

THE ARMY OF THE INEPT

(*Continued from page 92*)

respect for their audiences and excuse their lack of imagination by ridiculing it in others. The result is an inferior product.

The Directors Guild feels that "B" pictures are an important part of this industry and, because of their importance, must maintain, within their limited budgets, a high standard of entertainment which can be attained only by the best use of the creative talent of the director and writer.

COLOUR COSTS A FACTOR

With the advent of colour, the cost of production increases to an appreciable extent. Exhibitors can pay no more for colour pictures because they can ask no more from the box-office. It is the industry that must suffer. Because of this it is more clear than ever that the dependence of the industry on men of knowledge and experience with the mechanics and actual work in production, increases in direct proportion to the cost of production.

Who are these men upon whom this dependence increases? Who else than the director is at one and the same time familiar with the intricate and many sided problems of the camera, of the microphone, of the lighting, of the sets, of the props, of the mobs, of the stunts, of the cutting and, most important of all, economically of the footage? Who else has had the experience to justify such knowledge?

The significant fact remains that even today the best pictures made in the industry are largely those in which the director has had real participation in their dramatic and mechanical structure from inception in direct association with the executive producers without the interference of intermediaries. The success of this practice has had no weight in the industry—on the contrary, the practice of developing this approach to pictures is on the wane—and many directors who, until recently, were offered creative opportunities are finding the doors progressively closed to them. This costs the industry quality and time which are money.

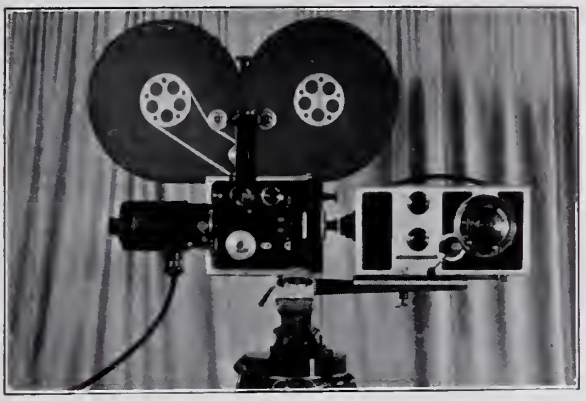
What built the motion picture was "individuality"—freshness of approach, the unique touch which gave vivid experience. These were the creative elements which raised the nickelodeon to the motion picture industry. This individuality was largely the contribution of directors and writers. This may be disputed *ad infinitum*, but it remains a fact that it is not material alone which is important to motion pictures but also the manner in which that material is registered on film in this infinitely imaginative and limitless medium. Today the system offers a virtual proscription against originality and freshness in pictures. This costs the industry millions of dollars.

To meet this dangerous state in our industry, the Directors Guild earnestly recommends that closer unity be established and maintained between the real producer on the one hand and the director and writer on the other, and that the directors bend every effort toward the re-establishment of the collaborative system which was, and still is, the money making and good picture making fact of the past.

The director has, for 10 years, been steadily pushed out of his initiating role and has thereby been less able to offer the industry his technique, inspiration and mechanical skill. These have been taken over by minor executives unfamiliar with the physical problems and possibilities of actual production and divorced from the spontaneous life of story, actors and director, together on the live set for the first time.

The directors believe in the medium, the audiences and themselves. They are ready to serve the industry as they always have and they protest that they will be able to serve it in direct relation to the opportunity given them to do so. They are convinced that they can move in this direction only as a guild, because the individual is no longer sufficient in an industry which needs not just a suggestion but a house cleaning.

"zOOM"



A DESCRIPTION OF THE VARO LENS

The "zoom" effects recently used in the Gaumont Sound News have no doubt intrigued cinema audiences and the newsreel technician will be interested in a description of this wonderful piece of apparatus; the product of the combined skill of Bell & Howell and Cooke.

The "zoom" effects are produced without either the camera or subject being moved as the scene is filmed. It not only gives a screen effect equal to a perfect "dolly" (which newsreel workers cannot employ, shooting as they do from stands, buildings, and innumerable other locations) but with the Varo Lens a variety of shots are possible without stopping the sound record.

The mechanical action of the lens is exceptionally smooth, resulting in a perfect screen effect, the definition being critical at all parts of the "zoom."

The focal length of the Varo lens is changed by rotating a crank which is coupled with a dial, the pointer of which shows the magnification and the equivalent focal length for which the lens is set. (This one crank controls all the moving parts of the lens). The short focal length limit is 40 mm. and the long focal limit is 120 mm. with a magnification of x3. Adjustable stops are provided so that the range of magnification may be limited to suit the immediate requirements.

The full range of the "zoom" is obtained at apertures of F 8 and F 5.6. At F/4.5 the range is from 40 mm. to 85 mm.; at the maximum aperture of F 3.5, the range is from 40 mm. to 50 mm.

The lens is focussed at a fixed distance and auxiliary lenses can be attached to the front of the unit for focussing on any other distances. Without an auxiliary lens in position, the plane focussed on is 150 feet to infinity, and auxiliary lenses are provided for focussing on objects at nearer distances. Inasmuch as the idea of a "zoom" is for the camera to be set at a definite distance from the object and not moved, the use of auxiliary lenses is in harmony with the use of the lens in practice.

It is only necessary, before using the Varo lens with the standard Bell & Howell camera, to enlarge both the holes in the turret index plate to 1.500" in order to allow the rear lens to move sufficiently close in to the film. The Varo lens is then fitted to the track of the saddle which engages with the slide on the lens, and is held in place by a plunger locking device.

The effect from tall buildings, from airplanes, etc., must be seen to be appreciated. It is possible to follow an actor through a doorway or through a window in a manner that is very difficult, if not actually impossible, otherwise.

This is the first time that a "zoom" lens of anything like this speed and of this quality of definition has been obtained. It introduces many new possibilities to the motion picture field.

OBITUARY

It is with regret that we note the death of **MR. E. J. HICKS** on July 25th, 1938. Since 1908 Mr. Hicks had been actively connected with the film trade, when, at the age of twenty, he first worked as operator, usher and general utility man in a Penny Animation Show at Lambeth, which was situated where the local Woolworth Store stands to-day. The auditorium consisted of a hall with wooden benches on an earth floor, and when he wasn't operating or making effects noises he was sprinkling the ground with water to lay the dust!

In 1912 he joined the Globe Film Company, where his time was divided between projection and despatch. Here again his ability for organising was apparent. When anyone wanted to know where and how to get anything, they just "asked Ned Hicks." During the War he ran shows for children, and more than once during air-raids kept the children amused and off the streets.

He joined New Era in 1925, and stayed there for ten years as despatch manager, also acting as a projectionist for Portable Talking Pictures round about the nineteen-thirties. Finally, in 1935, he joined the G.P.O. Film Unit, where, in addition to despatch, he was librarian and vault-keeper, and in charge of stores.

Early this year his health began to trouble him, and it was sadly that he resigned himself to giving up his more strenuous amusements, particularly cricket, his favourite game. A grand sportsman, Mr. Hicks always had a cheery word and a smile for everyone. His many friends will join us in offering our sincere sympathy to his family and relatives.

Progress—with a Protest

QUITE naturally the writers of articles in technical periodicals appertaining to laboratory practice attempt to impress the reader with an overwhelming sense of ultra-efficiency and scientific precision, talking glibly in terms that produce upon the mind of a layman an impression of awe-inspiring technical procedure entailing a correspondingly scientificially trained staff to maintain such proficiency. It would be wrong to say that this is a completely false impression, but at the same time who will deny the simplification of laboratory practice? Compare a high-speed lab. with those that you knew ten, twenty or more years ago. Conditions of working were bad, proficiency at any particular subject meant long months of training, output per man was lower, running costs were lower, but wages were higher and promotion a fact.

And now the progress! Conditions for some have improved. There *are* labs which have air-conditioning plants; film emulsion is a delicate flower, otherwise some of its gardeners might be denied a human atmosphere. But there are some people who still regard it as a Mexican cactus or gum tree, thriving best in steaming humidity with a wet bulb at 100° F. and innumerable chemical stenches as a means of fertilisation. Today proficiency seems to be expected of a newcomer the day he starts (the weeks we spent learning to frame up "in white light"!) and little if any training is given. No regard is paid to the numerous irregularities and uncertainties that always arise. Output per man has risen enormously, in fact ludicrously—and running costs? Consistency is the acme and accomplishment of every lab. But wages? —promotion?

None of the old 'uns will deny the happiness they had from those far-off days with their seemingly crude methods of working; men were men, living souls enjoying the daily round and receiving a just reward from encouraging governors; theirs was a price of skilled artisanship, aiming at the higher position which they knew would one day be theirs. Then came the machine, unwanted and hated—their task now was to tame often ill-conceived ideas, to wrestle and swear, to fight and forbear. Competition reared its head. Prices were cut to gain custom. Better and faster machinery was needed to offset the cheaper prices. Then, with a crash of trumpets, they married the picture to sound. Mechanical developers became essential for competitive work, studio footage for developing was doubled; studios experienced delay in receiving of rushes and called for a better service; night work became imperative. No cost was spared to gain custom; the latest American machinery was imported; speed, speed, speed became the idol of the lab.

The orgy came to a finish and the bubble burst. The gold-bearing vein in the lab's mine, the studios, ran out. Processing became a ticklish business. Methods of cutting down costs while still maintaining standards became essential. Faster machinery was evolved (more often than not with the help of the staff); accurate control of processing was instituted and still more competitive prices quoted. Young lads were employed to run the tamed machines and older experienced men retained in key jobs. After a long period, that position remains, except that the young lads are wanting to get married but can't afford it.

How often have you heard the remark "It doesn't pay to be efficient or conscientious"? Haven't you seen youngsters put their whole energy into their work, labour with tremendous enthusiasm, and then find themselves denied even the smallest encouragement? They reckon their labour against the pittance they earn and find that the answer has a sour taste. When proficiency has been acquired they are denied the wages which by right should be theirs. Asked to undertake a higher job, they accept—here is a chance of improvement! The usual result?—disillusionment!

The older workers feared modern machinery but they never refused to impart their knowledge in bringing it to perfection. What they feared was not the machine itself but that, to a large extent, their efforts in making it fool proof, would mean the employment of cheap unskilled labour to their own detriment. Can any employer with reasonable intelligence show surprise if all grades of staff join a union?—both the poorly paid, discouraged and embittered youths and the better paid experienced men. How would an employer's son who was thus treated, spending his working hours in sweating humidity, respond? But there! no employer would have the heart to treat a son in such a manner.

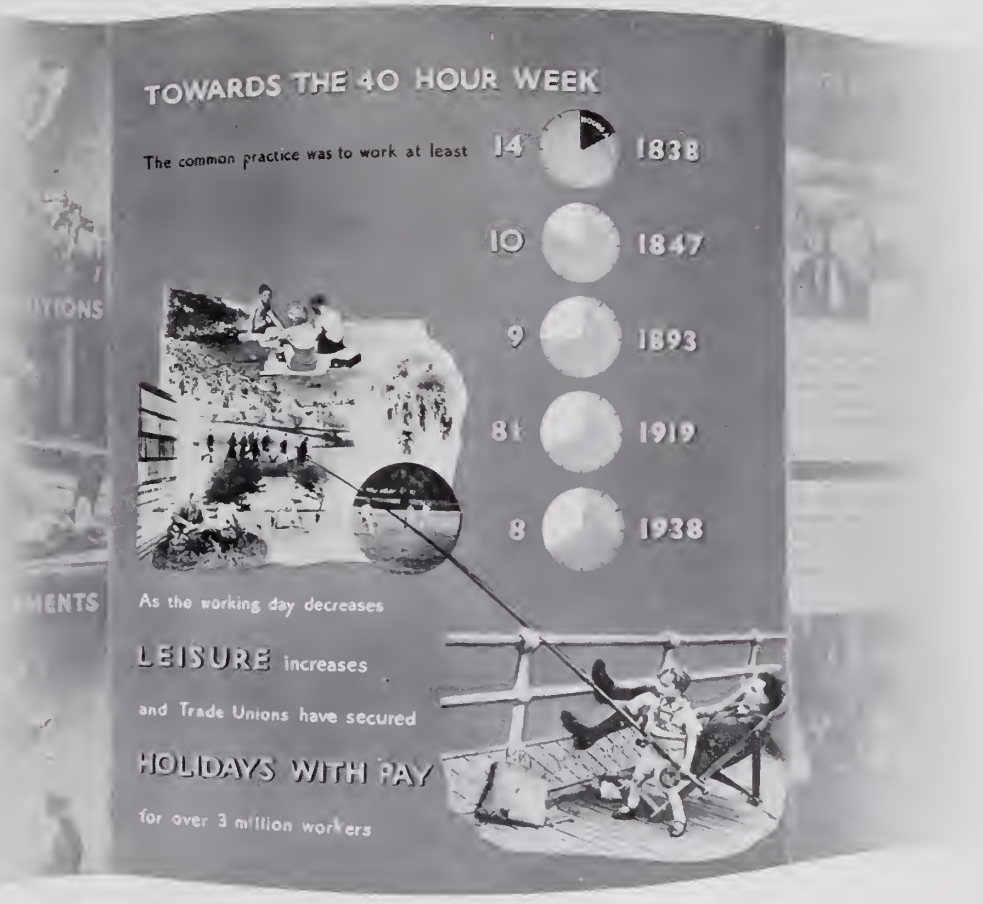
Laboratory processing has progressed beyond belief. But conditions and wages in most labs have received very little progressive recognition. Perhaps the lab owner, in defence of low wages, will suggest that his costs have risen enormously. No one will argue about that—he has had to face all the whims that have reached this country from Hollywood. But who slashed the prices charged for processing below an economic level? Not the staff—in that slashing, were they and their salaries ever considered? In its draft agreement, A.C.T. has submitted a reasonable scale of wages for laboratory jobs. If the owners say they cannot pay them, why not stop the slashing and put prices back on an economic level? Why sacrifice the craftsmanship of skilled workers in a competitive fight that spells long run ruin to many labs? One-tenth of a penny increase per foot would suffice. Renters couldn't complain—they saved a packet when they introduced north and south of the river release. Besides which, they have always taken the lion's share of the profits obtainable in the film industry. The lab owners have banded themselves together—for unity? Or to defeat the appeals of their employees? Why not for a price agreement? It would be salvation for them, for their employees and for craftsmanship.

NEMO.

SOCIAL INSURANCE

The National Federation of Professional Workers is again seeking an interview with the Ministers of Unemployment and Health to press upon them once more the urgency of reforming the present low salary limit for non-manual workers under the National Health and Unemployment Insurance. In view of the probability of a heavy slump and of the consequent threat to social services implied by new "economy" campaigns, the Federation calls on all Unions catering for non-manual workers to urge their members to write to their M.P's. on this matter.

T.U.C. BREAKS NEW GROUND



[*By courtesy of the T.U.C.*

The T.U.C. has broken new ground by taking a stand at the Glasgow Exhibition. An interesting pamphlet has just been issued giving a pictorial survey of their exhibit.

The history of the T.U.C. is depicted, together with a pictorial survey of the achievements of the Trade Union Movement. In 1937, for example, wage increases gained by Trade Union action gave over £40,000,000 per year to wage and salary earners. Since 1938 the working day has gradually got shorter as a result of Trade Union agitation—decreasing from 14 to 8 (though not for film technicians—yet!). The Trade Union Movement claims for the worker safety at his work and security in his job, and a feature of the T.U.C. exhibit suggests what the Trade Unions have done to this end The law now gives compensation for accidents at work and since 1918 over £84,000,000 compensation has been obtained.

Trade Unions have played a large part in shaping and improving the Factories Acts, which are concerned with many aspects of safety at work. Recent years of unemployment have driven home the point that a good wage is useless if you are not given the chance to earn it. A fair rate of pay is not in itself enough; the worker must have security in his job too.

Finally, the T.U.C. Pavilion attempts to give not merely an idea of what the Trade Movement has done but what it has yet to do.

Trades Union Congress

Mr. George H. Elvin, General Secretary, will be A.C.T's. delegate to the 70th Annual Trades Union Congress to be held in Blackpool during the week commencing September 5th. He will move a motion tabled by A.C.T. dealing with the Fair Wages Clause of The Films Act. A full report of the Congress will be published in our next issue.

A.C.T. Library

It is hoped in time to build up a comprehensive library containing all books which have been published on the various aspects of cinematography. We already have most of the publications issued during the past few years, but if any members have early publications and would care to donate them to the Association they would be very much appreciated.

ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES & WORKSHOPS, 1938

H.M. Stationery Office. 2/–

This Report has special interest for A.C.T. in view of the fact that this year the Factories Act covers film studios for the first time. The Chief Inspector, in his introductory letter to the Home Secretary, points out that the new Act is far less elastic than the old, that general and vague terms and definitions are now replaced by others more concrete. He further announces that the number of the inspectorate will eventually be increased to 332. I do not know how many factories there are in the country, but I feel that these gentlemen are going to be very overworked if they are to cover the ground at all adequately. However, it is better than when the Factories Act first came into existence 100 years ago; then there were only four inspectors. One of these, a certain Mr. Leonard Horner, contrived to make himself very unpopular. A petition was sent to the then Home Secretary, Sir George Gray, by the occupiers of the factories in Horner's district, asking that he should be removed as his conduct was "harsh, unfair and injudicious" and they hinted that if he were to remain in office he would "bring the law into still greater disrepute and the government into frequent unnecessary and injudicious collision with the people." Let us hope that members of the present inspectorate will not be so unfortunate.

The Report itself is divided into chapters, under the headings of Safety, Health, Hours, Welfare, etc. Various points are stressed, such as the fact that now for the first time adequate lighting is necessary in all factories; and in connection with this a certain photographic firm is cited, whose dark-room not only has a lighting system which does not strain the eyes, but who also provide dark glasses for their employees leaving the room for short periods.

Accidents have increased, being 9 per cent greater than in 1936. The total number reported was 192,539, of which 1,003 were fatal. The main causes seem to be the employment of unskilled persons, long hours, and speed-up. The percentage of persons under 18 involved in accidents in proportion to the number employed is greater than that of adults. The first two years of employment are the most dangerous. On page 47 there are enumerated eight points which outline a useful procedure to follow with people new to the factory.

Under Health, the care of the young worker is stressed, and great attention is paid in the new Act to hours of work for them. But the Chief Inspector points out that the benefit to health will only result if the shorter working time does not mean economic loss, and if the necessary nourishment for growth is not curtailed.

Welfare services are on the increase in progressive factories. The appointment of full or part-time doctors, dentists, etc. is a practice that is growing. An interesting development is the appointment of chiropodists; those who have to stand for long periods know how valuable this service would be. It is mentioned that only a few employers yet realise that the condition of the feet plays a large part in the health of the workers, and also the importance of a suitable floor surface in this connection.

The Report draws attention to the Home Office Industrial Museum, which has exhibits of all kinds of safety devices and which acts as an information bureau in all aspects of the Factories Act. 90,000 people have visited the Museum since it opened ten years ago. I would recommend to the General Council of A.C.T. that they organise a party to make a visit; I feel that it would be very helpful to us in our efforts to secure the full application of the latest Act to studios and laboratories.

E. A. GRAHAM.

SECRETS OF TEMPO REVEALED

"Professional cutters of silent films used to make a point of trimming about four frames from the beginning and end of every shot, no matter what it might be, thus sustaining a rapid tempo throughout. I will go further and say that as a general rule it is safe to clip anything up to six frames from the start and finish of any shot and that any shot is improved thereby."

A. G. BENNETT in *Amateur Cine*

That ought to send all you cutters back to school or wherever you came from. The only thing that bothers us is, what happens with a shot nine frames long? Do you take six frames from the front and only three from the end, or six from the end and three from the front, or what? On reflection, probably the last.

OUR PORTRAIT GALLERY

J. Neill Brown, drawn by Land.

CORRESPONDENCE

NOT BUILT IN A DAY

Dear Sirs,

The account of the Association's early days in the July-August issue of the Cine-Technician made very interesting reading, and would, I imagine, serve as something of an eye-opener to those people who believe that A.C.T. was built in a day.

The "Grading Scheme" mentioned was the result of a very serious attempt to reconcile those who were in favour of the guild principle as a primary objective rather that the building up of a hundred per cent trade union. The committee on the question consisted of Sir Reginald Mitchell Banks, Philip H. Dorte, Thorold Dickinson and myself, and the scheme was adopted at a Council meeting at the Radio and Film Club on May 25th, 1934. It was, as we realise now, predoomed to failure, and finally the whole idea of A.C.T. grading was dropped in the following year at a Council meeting held at the "Round House," Wardour Street, on February 4th, 1935.

On February 18th, 1936, at a Council meeting at the Kinema Club, the idea of an A.C.T. Technical Society to be run in conjunction with the Association proper was discussed, but after a heated and partisan argument it was decided not to take up the idea. However, it did stimulate technical activities, and on March 17th of the same year a Technical Research Committee, a grandiloquent title something of a misnomer, was formed, its composition being Alan Lawson, Ernest Aldridge, Alex Fisher, Desmond Dickinson and myself.

The Council also decided soon after to apply for affiliation to the Royal Photographic Society through its Photographic Alliance, and eventually negotiations took place with the R.P.S. about the widening of the scope of its Associateship and Fellowship to include all studio technicians. These talks proceeded almost without a hitch, and it says volumes for the progressive character of the R.P.S. General Council that it was so.

Mr. Neill-Brown was, I feel, somewhat harsh in his treatment of the membership at Lime Grove, since by 1934 G.-B. had made amends in reaching a total of 60 members, of which Michael Gordon, the present G.-B. Studio Secretary, was Editorial collector. This was a very considerable increase, as earlier Ivor Montagu and I had been the only A.C.T. technicians there, and had the dubious honour of representing ourselves on the Council.

One could recall reminiscences at length, the breakaway of a section of the G.-B. sound staff to the E.T.U., the dramatic Council meeting when Cope resigned and the subsequent rapid adjournment to St. Pancras Station (somebody had a train to catch) to draft a circular letter to Council members not present at the meeting.

However, things are settling down now, and elsewhere readers will probably see an announcement not unconnected with the E.T.U., a sign of the times if there ever was one.

Concluding these remarks, it may be of interest to your readers to know that the General Council has recently passed a scheme which allows for a certain amount of re-organization within the Association, including the formation of branches. It is hoped by this means to insure a closer contact with the body of the membership, and to provide a meeting place for discussion and the quicker dissemination of current topics.

Yours, etc.,
T. S. Lyndon-Haynes.

LIGHT CHANGE—A CORRECTION

Dear Sirs,

I think it should be known that what is described as "The new system of light changing introduced by Debrie" mentioned under the heading of "Paragraphs" by "Gamma" in your May–June issue, was first proposed, to my knowledge, by Mr. Parkins, our Managing Director, about 1931. I remember at the time he tried unsuccessfully to get Mr. Lawley to adopt the idea in conjunction with the Lawley printer, one of which we had not long bought.

Circumstances then prevented its development by ourselves, but in about 1933–4 I remember carrying out some more experiments on the first model of the "Editola" which Mr. Parkins has just designed, as this had a rotary shutter, the idea being to have the shutter cover the intermittent movement of the light change matt, whilst the movement of the film was continuous.

Although the results of these tests were very promising further practical progress on these particular lines has only recently been made possible by the advent of the High Pressure Mercury lamp.

However we did subsequently incorporate the original idea in a precision step printer which we had built for duping, using black spacing for the light change band.

Our biggest difficulty was getting a satisfactory means of punching the holes accurately, but this has been overcome and the changes are balanced up to our Bell & Howell printers so that grading can be kept constant.

Although we never thought that there was anything particularly original in this idea, it being just the natural outcome of the waterhouse stop principal applied electromechanically, if credit is to go where credit is due, it seems that this time English technicians should receive it unless further evidence is available to the contrary.

Yours, etc.,
For and on behalf of,
STUDIO FILM LABORATORIES LTD.,
A. DOSSETT
(in charge of Laboratory).

MORE PIONEERS

Following an article in our last issue headed "Pioneers," dealing with the early days of A.C.T., we have received some interesting information from Mr. George Hughes, of Olympic Kine Laboratories, dealing with the early efforts to organise film technicians.

He tells that an organisation was formed in 1920 called the Kine Workers' Social Society. Meetings were held in Long Acre. Unfortunately it only struggled on for a few months before fading away. Another organisation, however, was formed in 1921, which was called the Film Workers' Branch of the Workers' Union (now the National Union of General and Municipal Workers). We have in our possession a membership card of this Branch, which also, to judge from the entries on the card, soon faded away.

Recent Publications

RAT CATCHERS AND OTHERS

A Guide to Employment for Boys and Girls in Greater London. H.M. Stationery Office. 2/–.

In recent years the London Regional Advisory Council has had the happy idea of setting out a short description of all the trades open to children leaving school, with a brief account of the nature of each type of work, its vocational and financial prospects, and the general conditions in the industry. I must confess to being quite flattered at finding our curious racket set down quite naturally like any respectable industry somewhere between watch-making and French polishing. The humiliating memory is still vivid with me of a colleague's experience when the Shepherd's Bush Labour Exchange, finding no other suitable category for him, entered him under "Rat Catchers and Others."

But here we are appreciated for our true worth: "The qualities demanded in all departments are general alertness, adaptability and willingness to work the long hours which are frequently entailed." I particularly like the word "willingness."

And at last someone has exploded the romance of the men behind the camera. "*Camera Department*: In this department boys start by holding a number board which is photographed to indicate the beginning and end of a scene. They can proceed to a position as first assistant or focus man, which entails measuring the distances between the camera and the artists. By this means a boy with initiative can become a camera operator with prospects after a number of years of securing a position as chief cameraman and lighting specialist."

This official coldness should sufficiently deter the romantic young fifteen-year-olds, ardent to address a Star by her Christian name, from pouring into our flooded industry. It might have encouraged them to know that there are trade unions having every intention to reduce the hours of work and improve the conditions. But what does it matter? We have only to point out to the young would-be wage slave that his family tree establishes no connection with any of the ruling houses in the business and that will be the end of the matter . . . .

M.G.

Minitography and Cinetography

City Sale and Exchange Ltd.

This is actually a catalogue of the apparatus which can be obtained from City Sale and Exchange Ltd.; it is, however, a very elaborate one. It is divided into sections, each dealing in great detail with the various types of miniature and sub-standard cine cameras, and their numerous gadgets, now on the market. Each section has an article or two on the photographic work of the equipment listed in it, e.g., "Contax Photography," "Infra-red Photography," "Grain and Resolving Power," and so on. In view of the large amount of apparatus obtainable for this kind of photography, this is a useful book for anyone at all interested in the subject. A.C.T. members can obtain it free from the publishers by sending a 2d. stamp for postage. E.A.G.

FILM DIRECTOR TURNS NOVELIST

Darkness In The Land, by Robert Stevenson. (Heinemann, 7/6d. nett).

Hugh Gerard left London partly to escape the Great Plague of 1665 and partly because a psalm-singing wife, chosen by his father, would have brought him little joy. He escapes the wedding but does not evade the other pestilence. It catches up with him in a little Dorset village where he helps to organise defences against the terrible scourge. We are given a vivid and absorbing account of a brave battle fought against terrifying odds with some delightful cameos of the leading villagers. The parson particularly, Dr. Prometheus Marbell, is one of the most endearing characters of current fiction.

The author is the book's sole connection with the film industry. He wrote it while in temporary retirement, with his wife awaiting a happy event. In tribute to a first novel and in anticipation of its successors I wish Anna Lee and Robert Stevenson a large family.

G.H.E.

June in Skye, by Elizabeth Coxhead. Cassell. 7/6.

Except for a casual mention from time to time of a documentary film unit, who as far as the story is concerned are only dragged in by the heels and have no part in the plot, this novel has no concern whatsoever with our profession.

The story, which in itself could have been equally well written as a short story in an evening paper, reminds me strongly of the old song of the bear that went over the mountain.

And what do you think he saw?
"The other side of the mountain."

A girl goes from London to Skye (that takes 20 per cent of the book), she meets the boy (40 per cent), stays out half a night with him on one of the local mountains (20 per cent), she doesn't go back to London (20 per cent) —all of which makes the book 100 per cent for the two-penny library.

Or you can get it from the A.C.T. bookshelf if you think this sort of dialogue will interest you; it is spoken in a moment of surprising introspection by a cameraman who is (a) afraid of heights, and (b) a great photographer! "What's that?" said Christopher absently. "By Jove, yes, a precipice. But I'm not going to let that stop me. I may be fairly cissy but you'll admit that never stands in my way when I'm really on to the job." . . . . Just the sort of he-man our Union needs.

J.N.B.

Unavoidably held over are reviews of:—"I Should Have Stayed Home"—Horace McCoy (Faber); and "Films in the Making"—Robb Lawson (Pitman).

Technical Abstracts

FILTERS FOR DUFAYCOLOR

The effect of a colour filter on the colour reproduction of Dufaycolor film is approximately the same as that which is observed if we place the filter in front of the eye. We cannot avoid obtaining coloured whites since it is obvious that the filter has absorbed some proportion of the wavelength range constituting white light. Thus a pale blue filter absorbs some yellow (namely some red and green rays): therefore whites reproduce bluish because we have cut off by absorption some the the yellow rays reflected by whites. Similarly a yellow filter will cause whites to reproduce as yellow, a pink filter will cause whites to reproduce as pink.

Besides the above-described effect upon white, nearly every colour must be affected, since we have absorbed a part or the whole of its light—most colours reflecting to some extent the whole spectrum. The most useful effect for which a colour filter may be used is that of moonlight, or of night. For example, it is found that if we photograph partly against the sunlight, a scene containing plenty of broad shadows, an excellent effect of moonlight is obtained with a Dufaycolor K.20 filter. The aperture should be well-closed down to obtain partial underexposure. Another trick moonlight effect has been obtained with the so-called "panchromatic" viewing filter used by cameramen to examine the light and shade of studio sets.* If this filter be used for photography of direct reflections for the sun on water, an admirable moonlight effect will be the result. The reflections of the sun are coloured yellow and the background will be nearly black. Of course moonlight has a spectrum practically identical with daylight—but we have to reproduce on the screen its psychological effect, which is that of a bluish green with highlights of gold.

* *As for example Ilford filter No. 811 or Wratten filter No. 90*

The above filters can be used for night effects in combination with the "Pola" filter. The latter should be used at such an angle as to reduce the sky to the minimum. Thus it is easy to obtain a moonlit scene with a very dark sky, and this is precisely the appearance of moonlight.

Generally speaking the use of filters is strongly deprecated for trick effects, unless the operator knows exactly what he is searching for. The abnormal colour which is necessarily obtained is invariably mistaken by the audience for an **error** of reproduction by the colour process. Unfortunately both the public and, above all cinematograph technicians, persistently remember the errors but never the successes of colour work. This being the case the manufacturers of a perfectly balanced colour film can hardly be expected to show enthusiasm if a cameraman comes along with a series of shots exhibiting orange skies and blue trees and then with pride says he did with with a filter of his own make (very secret). He will generally tell you that his filter halved the exposure, *made* the whole picture, and having proven very successful in black-and-white, was of course ideal for colour. Dufay-Chromex don't like those filters.

There is no reason why the "Pola" filter should not be employed in conjunction with Dufaycolor film. Everything which it will do for monochrome photography it will do for colour—namely, eliminate reflections from polished surfaces, such as plate-glass windows, the surface of water, etc. The "Pola" filter has a slight characteristic absorption of its own. To correct this we can supply a pale-blue filter which will ensure that the blues are not unnecessarily reduced, which might otherwise be the case if the "Pola" filter is used alone.

GRADUATED FILTERS

The value of neutral and graduated density filters in colour photography has been insufficiently appreciated. There are many situations in which a marked improvement in reproduction can be obtained by the use of this means of reducing the relative brightness of certain areas of the subject. For example, in open landscape wherever there is an approximately horizontal division between land and sky, it is frequently of great value to possess the ability to reduce locally the brightness of the sky. This can be done by a graduated neutral density filter. Such a filter should be placed approximately the same distance in front of the objective as its real length. The best position of the filter can be judged by direct examination of the image in the ground glass viewing screen in motion picture cameras incorporating this feature. Such filters generally have a maximum density of D-0.50. This is just sufficient to even up the contrast between sky and landscape, enabling us to get much richer colours into the foreground without the ever-present danger of over-exposing the sky.

Dufay-Chromex

FULL-COLOUR REPRODUCTION OF GROWING CHICK EMBRYO

The introduction of easily manipulated colour-film has made possible the recording of biological phenomena that hitherto have been unsuccessfully reproduced on black-and-white film, because of the distinct limitations of black-and white film in recording brightness differences that become immediately obvious when portrayed in colour.

A biological occurrence of this kind has recently been solved by Professor Alexis Romanoff, of the Poultry Department of Cornell University, and Mr. E. S. Phillips. The authors were dealing with problems so close to the creation of life, namely, the formation of a living animal as it progresses through the delicate changes preceding hatching and final independence as an individual, photographic methods had to be limited to the narrow tolerances vital to maintaining normal development and even life itself.

In the short period of three weeks a seemingly inert object assumes definite form, emerges from its confining walls, and independent life begins. To portray this miracle adequately, the authors and Mr. Meade Summers determined to show development in three ways. The first series of pictures depicts growth as seen through the shell wall by means of transmitted light. The second series was made by cutting a hole about one inch in diameter at the blunt end of the egg. With the proper lighting alignment it was possible to see clearly within the egg itself. In the third series the entire contents of the shell were emptied into a large watch-crystal. As a grand finale an egg actually hatches before the camera lens.

PROBLEMS INVOLVED

The temperature of the egg had to be maintained at 99½° F. Humidity, although not so critical as tempera-

ture control, nevertheless had to be kept as near the optimum value as possible. Since normal development was shown three different ways, these conditions varied slightly in each case.

PHOTOGRAPHIC EQUIPMENT

The photographic equipment constituted a 16 mm. Eastman Special camera with a 1-inch f/1.9 lens, a 3-inch f/4.5 lens, and a 4-inch f/2.7 lens. The time-lapse mechanism made expressly for the Eastman Special was used for all pictures taken by transmitted light.

PICTURES BY TRANSMITTED LIGHT

Commercial hatcherymen normally view incubating eggs by candling; to duplicate this practice a special incubator box and lamp-housing were designed, shown in *Fig. 1.* Light from a No. 4 photoflood lamp passed through a water-cell which removed heat radiating from the bulb. Slightly above the water-cell a condensing lens focussed the light upon the eggs. The egg was supported by an opaque, velvet-covered mat with a hole the exact shape but slightly smaller than the minimum egg size. The entire mat was held in a glass-covered incubator box. A velvet-lined tube extended from the plate-glass covering of the incubator box to the camera lens, to protect the egg from any possible extraneous light. Heat within the box was supplied by ordinary resistance wire, controlled by a thermostat to within 0.2° F. To guard against short periods of overheating, a water cooling-coil was installed. Conduction of heat from the lamp-housing was reduced by forced ventilation. The same incubator box was used with but slight modification for all the pictures portraying embryonic development by other methods.

The f/2.7 4-inch lens was used in making all pictures by transmitted light. Exposures varied on Type A Kodachrome film from 1/30 second per frame for a fresh egg to 6 seconds per frame for the 20-day-old embryo. This wide range was caused by the increasing opacity of the growing embryo.

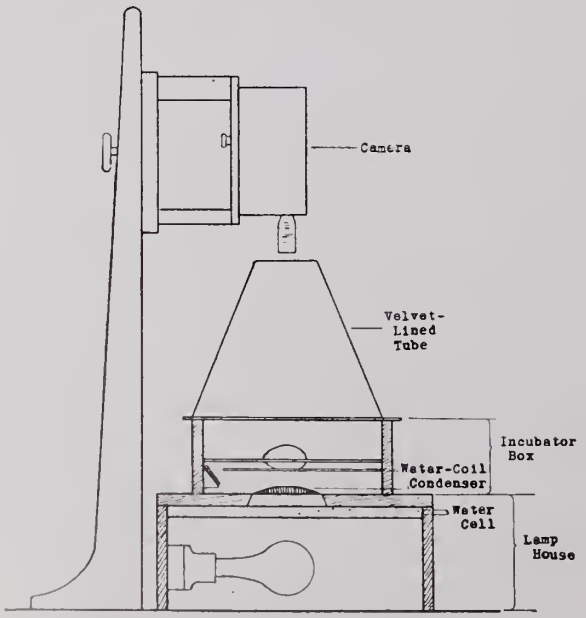


FIG. 1. Incubator box and lamp house.

EMBRYO VIEWED THROUGH APERTURE IN EGG-SHELL

The second series in the motion picture shows the development of the embryo as seen from the blunt end of the egg. Preparing specimens for this series was extremely difficult, particularly from the 5th to the 13th day of incubation. Professor Romanoff skillfully removed both the shell and the shell-membranes at the large end of the egg. When that was done it was possible to look within the shell and clearly see the developing embryo. This procedure was followed until the embryo was 13 days old, at which time removal of the inner membrane became so difficult (because hemorrhages were invariably produced) that a new method had to be employed. In its normal state this membrane is white and practically opaque. After considerable experimentation the authors evolved a technique—old in principle but new, it is believed, in application. When painted with an oily substance the membrane became transparent. But to complicate the photographic problem the membrane wrinkled and produced innumerable highlights which precluded any possibility of a clear-cut picture. Any movement on the part of the embryo changed the surface structure and accentuated the undesirable effect. Mineral oil floated upon the invaginated inner shell membrane (at the air-cell space) provided the most satisfactory solution (*Fig. 2*). In addition to making the membrane transparent the oil formed a plane surface through which it was possible to photograph clearly. By building the oil surface considerably higher than the membrane, embryonic movement proceeded without inducing any photographic difficulties.

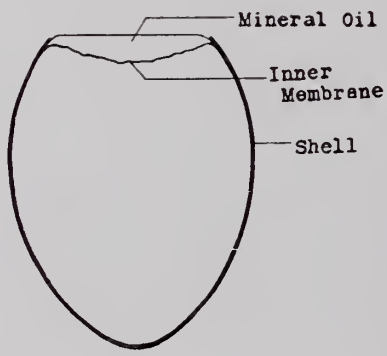


FIG. 2. Mineral oil placed upon the inner membrane to produce transparency.

In *Fig. 3* is shown the incubator box, with the egg placed vertically on a black velvet-covered base. This support was made slightly smaller than the sides of the box to allow free air circulation. The cover was plate glass. Two lights with reflectors were placed approximately 32 inches apart; one a No. 2 photoflood, was 17 inches from the egg; the other a No. 1 photoflood, was 15 inches from the egg. The two lights and the egg were aligned on the same axis at a 30-degree angle to the glass top. This eliminated direct reflection from the oil surface, cast enough shadow to emphasise delicate structural details, and give an illusion of depth.

The greatest difficulty encountered in filming these activities was to maintain strict temperature control. If the temperature became too high, embryonic movement was accelerated, and the converse was true with temperatures lower than normal. The reason is obvious when we

consider the high radiant energy emitted from the two light-sources. Although it is true that this entire series of pictures was made without controlling radiant energy, if the work were to be duplicated, either water-cells or heat-absorbing glass would be used.

Determining the exact exposure was exceedingly difficult because the reflectivity of the embryo changed from day to day as it underwent structural changes. In general, it may be said that the first few days of development required less exposure than the intermediate stages, and the last few days of growth the least exposure because of the formation of down and its high reflecting value. The lens used for these pictures was the 4-inch f/2.7, and the exposure was approximately 1/30 second at f/8.

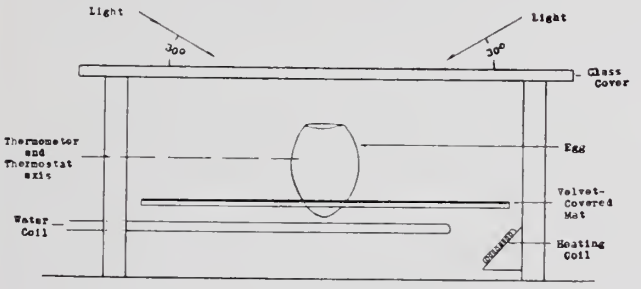


FIG. 3. Incubator box, with egg placed vertically on velvet-covered base

"Close-ups" of the heart presented an interesting problem in focussing. Since the working distance between the lens and the subject was very short, focussing had to be very critical. However, it is well known that when an egg's contents are placed upon an approximately flat surface sagging of the yolk occurs. Thus, it is obvious that as the yolk slowly receded, the embryo, which was on the top surface of the yolk, moved away from the lens, thus throwing the picture out of focus.

PICTURES WITH EMBRYO IN WATCH-CRYSTAL

The third series, showing the egg's contents emptied into a watch crystal, presented approximately the same difficulties as did the preceding pictures, with two exceptions—humidity and radiant energy. With much of the egg content exposed to the air, both evaporation and absorption of radiant heat were increased, thus accentuating the effects noted in the previous series.

HATCHING PICTURES

The most tedious series of exposures were those made at the hatching period. Relative humidity had to be maintained at 65–70 per cent to insure a normal hatch. Because of the high humidity, condensation upon the glass cover of the incubator box made photography difficult. Also the emerging chick was extremely conscious of visible light and often ceased all activity as the exposure was made. However, the greatest difficulty arose because of extreme variations in the hatching time for each individual, for some chicks emerged in ten minutes and some in three hours.

GENERAL

The motion picture, "Where Chick Life Begins," took three months to produce, more than 2,000 eggs were used, and five separate originals were made at the same time. It should also be said that, with the exception of certain scenes incorrectly exposed, the fidelity of colour reproduction is excellent. At the present writing more than 40,000 persons in all sections of this country and parts of Canada have seen the picture.

The enthusiastic reception that this picture has received is due more to its reproduction in colour than to any other technique involved. Furthermore, if the picture may be regarded as a fair example of what can be done in the biological sciences, the latent possibilities for similar projects are enormous in variety and number.

(*Journal of the Society of Motion Picture Engineers. July*, 1938)

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A.C.T. Lectures and Film Shows

Arrangements are now nearing completion for the A.C.T's. usual winter programme of lectures and film shows. Syllabuses giving full details will be available shortly.

The subjects covered will deal with most of the important aspects of film production including sound recording, camera technique, and laboratory processing. Television will also be covered, while new ground is being broken this year when a debate on a controversial subject will be arranged between two leading technicians. On the non-technical side there will be a lecture on "Trade Union History and Practice."

Lecturers will include Mr. A. S. Attkins, A.B.C's. Chief Sound Engineer; Mr. Philip H. Dorte, pioneer A.C.T. member, who will be lecturing by courtesy of the B.B.C.; Mr. Stanley W. Bowler, Manager of Gaevert Sub-Standard Cine-Department; and Mr. G. Woodcock, Researeh Officer to the Trades Union Congress.

Film shows will include an evening of early films by arrangement with the British Film Institute.

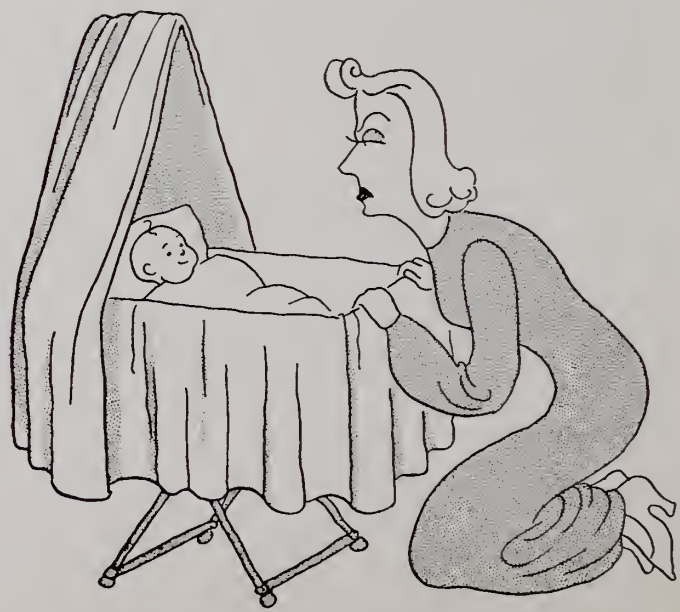
"In Hollywood, as in England, the 'friends and relations' racket is practised to a very large extent . . . there are frequently waiting lists . . all, of course, relatives and friends of important producers. . . . Jobs must be found. . . ."—Leigh Aman in *The Cine-Technician.*

BLOOD IS THICKER

—says Pigswill

"I'm his first wife's cousin."

You need a job,
Colleague o' mine,
The landlord wants his money,
Sometimes perhaps
You like to eat?
Which really ain't so funny.
Maybe you've walked
For miles and miles,
With studios implored,
And tho' you tell
How good you are
It seems to make 'em bored.
But stay, my friend,
Don't give up hope,
Consider for a while;
Just get that
Family album out
And treat it as a file.
A stately group—
That bloke in front
Was Aunt Maria's brother
Who went abroad
Some years ago
(And never wrote his mother!)
Where is he now?
For all you know
He's in a sunny climate
In California
Making dough
And wealthy as a Primate.
Like one of those
Producer chaps
Mentioned up above,
He'll put you on
The Vacancies
For the sake of Family love.
He might have got
A "ski" of course,
Or "berg" upon his name;
But go along
And look him up,
See what you have to gain.
Are others all
Accounted for—?
There's Cousin Willie's baby
Who may, by now,
Be one of those
Producers' leading lady.
I've sorted my
Relations out
To see what they are doing:
Old Uncle Joe's
Still on the dole
And Papa's busy suing.
None are in this
Blinking game,
And I haven't got a brother
But how I wish,
Oh, how I wish
That Garbo was my mother!



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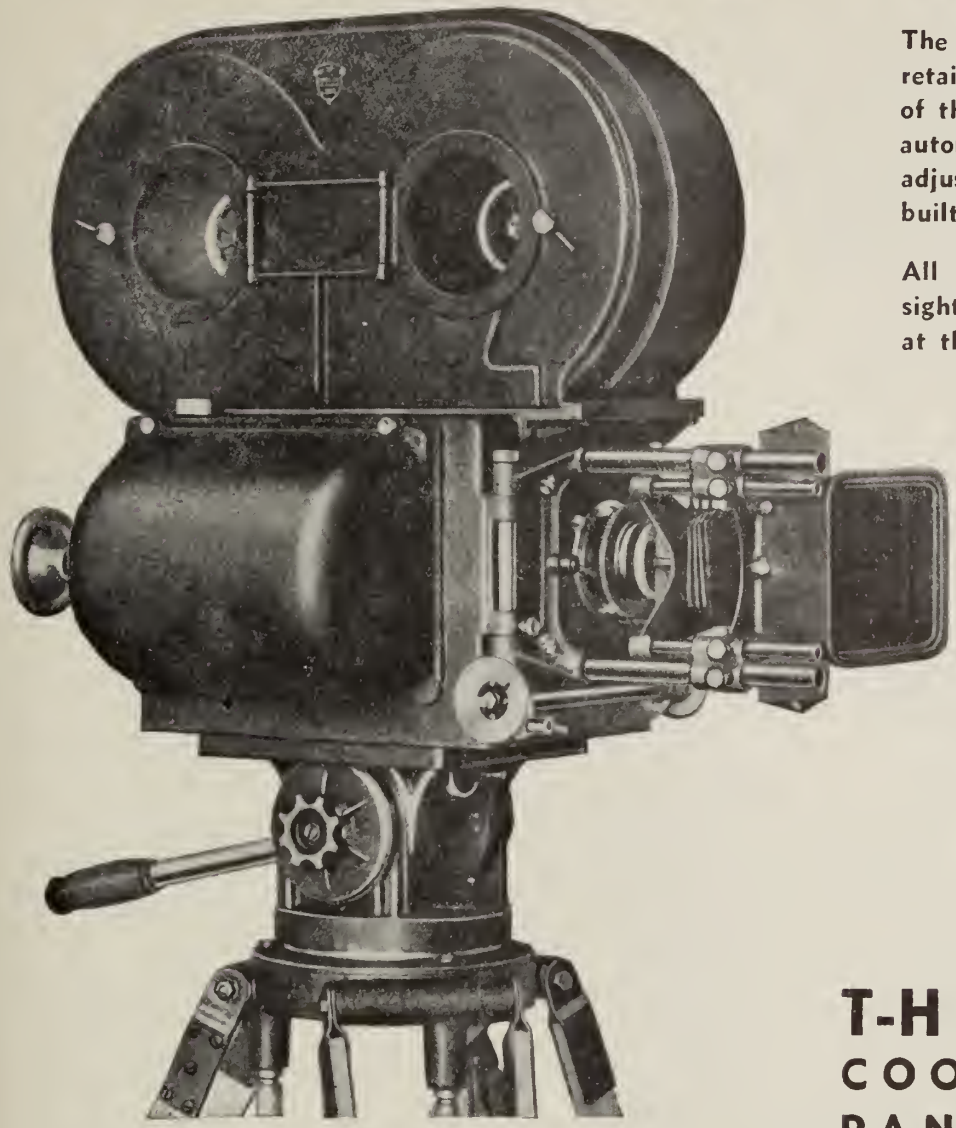

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FORWARD IN HOLLYWOOD

by CEDRIC BELFRAGE

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FORWARD IN HOLLYWOOD

by

CEDRIC BELFRAGE

EVER since Sam Goldwyn (the name is used symbolically) first achieved world fame by cabling Chaucer an offer for screen rights to his *Das Kapital*, Hollywood has been noted for its cockeyed approach to problems. It should, therefore, be no surprise to anyone to find that, in the new socially-conscious, trade union Hollywood, a major fact for progressives is the struggle against the would-be industrial and the fight to build and strengthen a host of craft unions and Guilds which at present are but loosely co-ordinated.

That does not mean that Hollywood workers are opposed to industrial unionism on the broadest possible basis. Very far from it. Some of the highest paid movie stars have contributed ammunition to Senator Dies and his red-baiting friends by openly working for, and contributing to, the C.I.O.* But there are no C.I.O. unions in Hollywood studios. The organisation which seeks to unionise all workers of the movie industry under one loving hand wearing brass knuckles is the I.A.T.S.E.—the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators, affiliated to the American Federation of Labour.* And the de facto head boy of this friendly little group is a Mr. William Bioff of Chicago, alias Henry Martin, alias Morris Bioff, whose photograph interested zoologists may turn up in the Chicago Police Department "Rogues Gallery" under the index number C37305.

On July 19, 1935, the Chicago Tribune thus referred to Mr. Bioff in a front-page account of the murder of one Louis Alterie, head of the Theatrical Janitors' Union:

> *"Police were hunting Willie Bioff and Joe Montana, West Side gunmen, thinking they might have knowledge of the ambush which was worked out with all the loving care and attention to detail which Frank (The Enforcer) Nitti was wont to use in erasing enemies of the Capone syndicate. Bioff used to serve as handyman for Jake Zu'a, West Side vice-monger, and was later associated with 'Dago' Lawrence, Mangano and other West Side hoodlums . . . . . "*

This Mr. Bioff moved into the Hollywood labour situation after he had got virtually every projectionist in American movie theatres into his friendly society. Moving swiftly and with the old Chicago aplomb, he has already rounded up 12,000 production-set electricians,

* *Committee of Industrial Organisation, a federating body of Trade Unions advocating organisation on an industrial basis as against the American Federation of Labour, the older organisation, which advocates organisation on a craft basis.*

property men, grips, studio projectionists, minature set-makers, special effects men, rank-and-file cinema and still photographers, film and sound technicians, lab. men and studio foremen into four Hollywood locals of the I.A.T.S.E., which he calls a Trade Union but which can more correctly be styled a job-monopoly racket. What Mr. Bioff says in the I.A.T.S.E. goes. A few of the more naive Hollywood members asked last Christmas why it was that the Hollywood locals cannot so much as buy a postage stamp without permission from Chicago. Flanked on the rostrum by a picked group of boy-friends from Capone's home town, Mr. Bioff appeared before the locals and smilingly asked the members to vote whether they wished the non-autonomy set-up to continue—the "Ayes" to so indicate by rising from their pews. The members had jobs to keep and months to feed and there is still no autonomy in the I.A.T.S.E. in Hollywood. Furthermore Mr. Bioff announces that he proposes to extend his jurisdiction over the entire industry and make the I.A.T.S.E. the sole union.

That is a special kind of problem—and a very serious one—with which trade union progressives in Hollywood have to deal. It shows that all the melodrama in the movies isn't up on the screen—and it maintains (if you care to look at it that way) the cockeyed flavour that seems to be inseparable from Hollywood doings. But workers in the Hollywood trade union field have to learn to take that flavour in their stride, and indeed to make useful capital out of it when the occasion arises. To fight effectively for labour you must learn to speak in the language of the country. The most recent labour dispute in Hollywood—the strike of the Newspaper Guild editorial workers on the *Hollywood Citizen-News*—put a picket-line on the Boulevard which included fashionably-dressed blondes leading toy dogs, United States Congressmen, and 5,000 dollar-a-week directors in snowy sports deshabille. To mark the first month of the strike, hundreds of printed invitations were sent out for a picket-line cocktail party, and a noted female star cut a birth-day cake on the sidewalk for the picketers, while a fashion columnist described the latest picketing modes for a sound newsreel. Cockeyed it was—but the strike ended in unconditional victory.

Should anyone judge from this preamble that the new trade-union progressive Hollywood isn't going places in a serious way, he has got me wrong. Let me offer the simplest picture I can of the complex but distinctly hope-ful situation.

The great mass of the workers in the American movie industry, who until recently were as upstanding a group of rugged individualists as Mr. Hoover could hope to see, have begun to grasp what kind of an industry theirs is, what makes the wheels go round, and just where they come in—or go out.

They know that Mayers and Zanucks and Schencks are not really the bosses. Behind them is Wall Street, the great octopus of finance capital. Hollywood is directly linked to Wall Street through patent control of the tools not merely of production, but of consumption as well. The same companies which own the patents on sound-recording devices, for example, hold the rights to sound-reproducing devices. Film, sound equipment, light-ing equipment, cameras, projectors are all controlled by two or three electrical firms which long ago became the chattels of banks dominated by Morgan and Rockefeller.

At the same time Wall Street is rapidly extending its control directly within the industry. Wall Street has a special interest in the movies which (together with radio, controlled through the same group of patent-holders) represent the most powerful of all media for manipulating or sterilising public opinion. And so Holly-wood observers see "reorganisations" constantly taking place, prosperous firms being bankrupted to the ruin of thousands of shareholders, in order that Wall Street may wrap another tentacle round the movie screen. Con-veniently, too, there are the "decency" scares worked up in the Wall-Street-dominated-press, enabling such stooges as Hays and Breen to fight all attempts to inject social significance into the movies under the pretext of "keeping it clean."

Hollywood workers understand that aroused and en-lightened public opinion must be mobilised on the one hand to combat this monopoly; and on the other, in the industry itself, the challenge must come from effective trade unions. Wall Street realises that too—and hence (since the Wagner Labor Relations Act has made unions

Nick Grinde and Marie Wilson, leading her pet terrier, in the "Hollywood Citizen-News" picket line.

an inevitable evil while Roosevelt sits in the White House) the place in the sun currently enjoyed by Mr. Bioff and his openly gangster-dominated I.A.T.S.E.: an "industrial union" which, in strange contrast to the savagely attacked C.I.O., is patted most encouragingly on the back in the kept press. Thus right down the line in Hollywood, from producer-employers to labour unions, is seen that cleavage that all through the weave of American life has cut across old alignments: Reaction versus the New Deal. The economic factor alone suffices to develop a New Deal element among the producers, simply because the masses in America to-day are New Deal conscious and there is no doubt whatever that the expression of progressive ideas on the screen means cash at the box-office. Heading this producer element is seen Walter Wanger, who is sensitive to the leftward pull of public wants but at the same time is tugged savagely rightward by Wall Street, to the theme-song of Commodore Will Hays' polysyllabic platitudes about protecting Youth. Wanger finds that it is one thing to produce a "Blockade"

William Bioff. Photograph from the files of the Chicago Department of Police.

and quite another to get it to the public. "Blockade" is attacked by noisy reactionary minorities headed by the Catholic hierarchy, and to judge by the feeble attempts made by United artists to use as counter-weapon the expressed majority desire for "Blockades," the attacks appear to be welcomed.

In the Hollywood union set-up the cleavage between New Deal progressivism and reaction becomes every day more clearly defiined. Mr. Bioff and his IATSE boys have already been introduced, but even in the IATSE—as must inevitably happen when 12,000 workers are collected in any kind of a union—there is a strong progressive bloc ready to smash the gangster element when the time comes. Also on the reactionary, or alkaline, side are the pure and simple company-unions into which the employers have shepherded the several thousands of clerical and office workers.

The remainder of Hollywood's union workers are thus aligned. About 10,000 plant-maintenance electricians, plasterers, painters, teamsters, carpenters, musicians, machinists, ntility employees (labourers) and others belong to about a dozen local cratt unions affiliated to as many different internationals of the A.F. of L. Another 11,000 odd workers in the industry—the "talent groups" comprising writers, directors, actors, cartoonists, publicists (press agents), set designers, readers, and so on belong to the professional Guilds. Of these Cratts and Guilds the Painters, Musicians, Writers and Directors are the most militant, but most of the others lean further to the progressive side than the reactionary national leadership of the A.F. of L. thinks healthy.

Contractnal relations between Hollywood employers and the Unions and Guilds are handled through Pat Casey, labour contact man of the Hays organisation (Motion Picture Producers and Distributors of America). Mr. Casey, as need hardly be said, knows which side of the street is right and has at his disposal the best legal brains that money can buy.

Several forms of contractual relations exist. First, there is the so-called "basic agreement" enjoyed by the IATSE, Carpenters, Musicians, Teamsters and International Brotherhood of Electrical Workers. This agreement sets wage-scales and hours of working, an annual conference to discuss revisions, and in its present phase provides for two successive wage increases of 10% each. There is no written provision in the "basic agreement" contracts for a closed shop. The closed shop exists in practice, and by what is called a "gentlemen's agreement," but legally there is no such provision in the contracts. The IATSE was admitted to this agreement in December 1935, shortly after Mr. Bioff stepped into the picture, when it had on its rolls a tiny handful of Hollywood workers. No minutes of the get-together session between Pat Casey and the IATSE have ever been seen. Casey testified before the California State Assembly investigating committee simply that there was no record of the meeting. He did not say specifically that no minutes were kept, but he phrased his statement so as to give that impression. Actually the general belief is that the minutes were destroyed.

Early in 1937 the painters, charging they had not been given their second 10% wage rise (the average annual wage was continuously dropping), withdrew from the basic agreement and struck for better terms. They were joined by a group of Cratt Unions, as yet unrecognised by the studios, who demanded recognition. The IATSE promptly began strike-breaking. One of Mr. Bioff's comrades had his offices in Warner Bros'. studios where he issued union cards to those who applied for strikers' jobs in response to help-wanted advertisements. The Screen Actors Guild, also unrecognised as yet, made a gesture of solidarity with the striking Craft Unions, who called themselves the Federation of Motion Picture Cratts. But the actors withdrew their support at the last minute in exchange for a remarkable kind of agreement with the producers, giving them recognition and closed shop on the understanding that they would never strike for any reason during the next ten years.

The strike failed, except for the painters, who resorted through their International to nation-wide picketing of theatres. The CIO lent them fraternal support in a boycott threat and they were able to force a separate agreement from the producers. The experience of this

Walter Wanger

strike had a profound effect on the policy and programme of the producers, of the IATSE leadership, and of the small Craft Unions.

Among the Guilds, only the Actors have been so far recognised by the producers. But the National Labour Relations Act makes it obligatory for employers engaged in inter-State commerce to bargain collectively with any group which elections show to represent the majority of workers in its field. Such elections were held by the Screen Writers' Guild, which won by a smashing majority over the producer-dominated Screen Playwrights. The producers' reply to this is to launch on what may be a year or two of litigation proving that they are not engaged in inter-State commerce. The situation is reminiscent of the British "National" Government's attempt to shop the showing of uncensored progressive films in unlicensed halls by proving there is no such a thing as a non-flam film. The Writers Guild case is a test one and on its outcome largely depends the fate of all the unrecognised Unions and Guilds.

During the past twelve months progressives in Hollywood and throughout America have known that a new element was entering the national labour picture. When it became evident last summer that progress toward recovery was limping badly, President Roosevelt called a special session of Congress. The entire C.I.O. and most of the A.F. of L. pledged their support to the President, but simultaneously the stock market sagged badly, and in the financial papers phrases like the following began to appear: "Capital must defeat the Trade Unions and the New Deal by going on a sit-down strike."

Hollywood received the news that 100,000,000 dollars of capital originally earmarked for financing film production would not be forthcoming. That there was indeed a "sit-down" strike of capital going on was obvious when at the close of the year movie producers reported the biggest profits they had made since 1929—a rough total of nearly 40,000,000 dollars. The juicy melons had hardly been cut when studios began laying off professional and craft workers by the thousand, explaining that though they had done all right in 1937 they were tightening their belts for bad times ahead (a story to which they stuck even when the early months of 1938 showed profits still

Melvyn Douglas

Joan Crawford

rising). Curtailment of production was going on simultaneously all over the country. General Motors suddenly laid off 30,000 workers at one swoop. The next thing Hollywood knew was that 17-year-old Rudolph Valentino pictures were being revived because—the law of supply and demand having "mysteriously" broken down—exhibitors simply had nothing else to throw on their screens. Here beyond a doubt was an artificially-incubated depression, presumably having as its object the discrediting of Roosevelt's pro-labour administration to pave the way for the 1938 and 1940 elections.

Progressives in the Hollywood Crafts and Guilds, eager to fight this reactionary move by finance capital, saw with full force the weakness of their disunity. The Musicians turned out a do-nothing administration with which they had been encumbered for ten years, and launched a campaign to activise the Union's entire rank and file on behalf of improved conditions and more co-operation with other Unions. They quickly scored a real victory in winning an agreement from producers to abandon the use of stock sound-track in making new films. This is estimated to have augmented work for studio musicians by 60%.

Spurred by the mounting unemployment, the aggressive Painters Union now called a conference of all Crafts and Guilds to discuss means of meeting the crisis. All the Guilds except the Actors responded, and all the Unions except the I.A.T.S.E. (whose organised progressives, however, sent an unofficial delegation). The Actors Guild is divided into two sections: the Senior Guild, comprising highly-paid contract players, and the Junior Guild, comprising extras and bit and day players. The Juniors, ravaged by unemployment, voted to send delegates to the Unemployment Conference, but the Seniors —such is the constitution of this peculiar organisation— were able to countermand their decision. The presence on the Senior Guild's Board of such relatively progressive people as Joan Crawford, Franchot Tone, and Boris Karloff is not sufficient to swing policy away from the more conservative element. But Mr. Bioff's announcement at this time that he intended taking over all labour organisation in Hollywood did sting Actors Guild President, Robert Montgomery, into issuing a "strong statement" that his Guild would defend its jurisdiction. The "Bioff

Robert Montgomery

Plan" caused nearly all the other Guilds and Crafts to pass fighting resolutions against it. The Directors Guild, led by Frank Capra, declared it stood ready to fight as its own enemy any group making a hostile move toward either the Writers Guild or Actors (fellow-members of the "Tri-Guild Intertalent Council").

With considerable wind now out of blustering Mr. Bioff's sails, the Unemployment Conference commissioned a professional research group to study unemployment and working conditions in the industry. The survey revealed:

(1) That 38% of the Craft and Guild members were unemployed as of March 1st, 1938 (the percentage rose higher through the Spring).

(2) Crafts and Guilds engaged directly in production suffered worst, 48% of their members being unemployed on March 1st.

(3) The average yearly wage for Craft members engaged in production was between £280 and £300 in 1937, as against £487 in 1929, £343 in 1933, and £335 in 1935. (That is, in the heavy profit year of 1937, after the Craft Unions had more or less consolidated their position, the average wage was less than in the depths of the great depression).

(4) Only about 20% of the members of production crafts are steadily employed, and for those the average year's work is only 190 days.

(5) In 1936 and again in 1937 the five major companies reported an average increase in profits of 25%.

(6) Out of the producers' budget dollar, the largest item, 42%, is for Miscellaneous and General Overhead (which does not include cost of stars, featured players, script-writers, directors, music, sets, etc.)

When the Guilds and Unions in the Unemployment Conference looked at the findings of their survey, they decided that fundamental changes in hours and production methods were necessary to assure a decent living standard and something resembling job security. The Conference changed its name to suggest its broader orientation, and became the Conference of Motion Picture Arts and Crafts—"C.O.M.P.A.C." for short. It promulgated a five-point programme for consideration and action by its affiliated groups (C.O.M.P.A.C. being neither a legislative nor a negotiating body). This programme emphasised the need for stabilising production, and called for:—

(1) A limited straight-time work day for all production crafts between 6 a.m. and 6 p.m., with all time exclusive of these hours classed as overtime.

(2) A minimum call of six consecutive hours (as against the present three) for all workers.

(3) A five-day work week with weekly wage rate to equal that now prevailing for six days, such five-day week to consist of a six-hour day for crafts and an eight-hour day for talent workers.

(4) A weekly limitation of working hours totalling 30 cumulative hours for Crafts and 40 cumulative hours for Guilds unless all other members of the organisation are working.

(5) Elimination of all flat-salary or key-men except one for each Craft who may act as standby for a shooting company, such standby men to be paid the regular hourly rate with overtime penalties.

* * *

That is a rough sketch of the picture as we see it in Hollywood today. We see the producers, following the line of their Wall Street overlords, "sitting down" against a political regime which is dedicated to safeguarding living conditions and civil liberties of working people. We see them fighting the progressive elements in organised labour, trying to keep labour divided if it cannot be Hitlerised, encouraging the I.A.T.S.E. leaders to set up a racketeering job-monopoly for the entire industry based on terrorism. On the other hand we see the I.A.T.S.E. progressives fighting for rank-and-file control, and the Crafts and Guilds drawing closer together against threats from Mr. Bioff and in defence of their terribly threatened living standards. And as a result of being forced by insecurity, and often by hunger, to look thus closely at their problems, Hollywood workers of "rich" and "poor" categories alike are growing daily more alive to political considerations and to the composite world picture. For some time there have existed organisations in Hollywood to help combat world fascism. And something new has

Franchot Tone

(Continued at foot of next page)

COLOUR — The New Technique

By BERNARD KNOWLES

UNTIL it becomes more general or even universal to do pictures in colour and all cameramen have the same knowledge and experience of lighting for colour the man who has done even one or two at the moment must stand in a slightly privileged position. He has gone through his baptism. I have gone through mine and have come out of the ordeal with certain views on the subject, hitherto held only sketchily or not at all.

In the first place the black and white medium seems to be the normal way in which man started to put down his impressions of the world around him. He began in caves with charcoal drawings on the walls long before he advanced to using pigments and colours. The first photography of any sort at all, developed by Daguerre and Fox Talbot, was monochrome, and most commercial photography still is. It seems to be easier to reduce the phenomena of the external world to its simplest terms of form and composition before going on to the more cultured additions of colouring. Black and white is the basis on which every cameraman must build; it is his high school; colour is his university

As in all such advances certain interested persons would have you believe that the work is much more difficult than it actually is. For example, although more light is used than in monochrome there is not the *enormous* increase of light volume that I had been led to believe. That it is differently applied, yes, and that until you have seen the first week's rushes you cannot at first be certain that the effect you aim for on the set will come out on the print, also yes; but that it is more difficult demands a qualified negative. Forget yellow light entirely, and the new technique is very much the same as lighting in silent films of long ago.

There is a general belief that colour lighting has to be fairly flat. This is not true, neither is it true that "modelling" results in colour distortion. It is more interesting to "frame" a shot with coloured objects because the composition can be improved or destroyed by the colour distribution in the frame space in what would otherwise be an effective design of line and mass. On a Technicolor picture, of course, it is fairly easy to escape the snags of the tyro, owing to the very expert guidance of the company's advisers, who are there to help you achieve your object without the headache of wondering what is the best way to go about it. The experience and ideas of the cameraman with the help of the advisers can be easily combined to give really satisfactory results.

A higher standard of operating is necessary, as can be readily understood, but this is largely a matter for time and experience on the part of the man himself than for any greater degree of intelligence. It is only a further application of the knowledge he already has. The cameraman has to be a little more careful with light balance, but if he is good in monochrome he should be good in colour. It is not just a matter of getting the appropriate light and shade to fall in the right places; it is the artistic use of the colours that have been given to you by the art director and dress designer. A study of some of the classic oil paintings in our public galleries would give the lighting expert a wealth of knowledge that he could apply to his own art of painting with light.

When working on the "Mikado" at Pinewood during the last month or two I learnt more about colour lighting than all the reading I have done recently could ever have taught me. One thing did rather take me by surprise, however, and that was the amazingly good quality of

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FORWARD IN HOLLYWOOD (*Continued from previous page*)

arisen in connection with the California State elections to be held at the end of this year. Studio workers, conscious that they can do little without a genuine New Deal administration in the State Capital, have banded together to oust the crooked Republican administration which has ruled California since the dawn of the century. The Motion Picture Democratic Committee, headed by such personalities as Miriam Hopkins, Melvyn Douglas, Paul Muni, Gloria Stuart and others, is vigorously campaigning to "bring the New Deal to California" and to send trusted New Deal Congressmen and Senators to Washington. There will be no repetition in 1938 of the disgraceful happenings of the Upton Sinclair-for-Government elections of 1934, when every studio worker was forced to give a day's pay toward the defeat of Sinclair and there was no organisation powerful enough to protest effectively. In fact, a working model of democracy in expected in these parts almost any time now. The movie industry is a key position for democracy to win. What happens in Hollywood, and what happens in every other movie industry under a democratic form of government, has national and international effects.

EDITORIAL NOTE—*Since the following article was written, the situation has materially changed, and with dramatic suddenness. On September 10, the organised progressives in the Hollywood locals of the I.A.T.S.E. filed charges with the National Labor Relations Board alleging violation of the Wagner Act by international leaders of the Union and the producers. One accusation in support of this position was that Bioff had received a $100,000 bribe from Joseph Schenck, head of the Motion Picture Producers Association. Bioff and Kent denied the bribe charge, but Bioff admitted "borrowing" $100,000 from Schenck. The day after publication of the I.A.T.S.E. progressives' charges before the N.L.R.B., the international leadership of the I.A.T.S.E. suddenly granted autonomy to the four Hollywood locals and ordered elections of officers. In the two largest locals, 37 and 83, progressives succeeded in electing a majority of officers. Bioff has resigned from any connection with the I.A.T.S.E. Progressive leaders now feel that the way is open for genuine trade unionism among the key cine-technicians organised into the I.A.T.S.E., and for the building of real unity between I.A.T.S.E. and other Hollywood unions.*

the black and white rushes that we got, and these, remember, were taken from one of the negatives, the blue record, which only gives about 25% to 30% of the total colour range of the scene photographed. On many days these prints measured up to the standard of any good black and white show copy. If this quality is possible from the Technicolor laboratories on only a quarter or a third of a full negative's possibilities it gives one furiously to think.

Technicolor rushes are, of course, usually in black and white, but this does not in any way cramp the cutter's style as it is not really necessary for him to try and match the colours himself. On the final prints the the laboratories match the colours with really amazing accuracy. To give the cameraman an idea of how the colours themselves are turning out during the process of shooting, the labs always supply a colour strip or "pilot" taken from a ten or twelve foot test which is run off at the end of each shot. These "pilots" give a very good guide as a day-to-day check for the cameraman, and as far as the cutter is concerned, if he does wish to check his colour matching, he can always refer to the "pilots."

With all this in his favour and the colour experts beside him there is no need for the cameraman who has come straight from monochrome to panic. He lights just as he wants to. In many respect indeed his work is easier. There is less likelihood of "visibility" error in colour than in black and white, as naturally one has colour separation. One thing I feel we should avoid, of course, is the splashing on of colour for colour's sake, as in my view a piece of bad colour contrast is very much more obvious than a piece of bad monochrome.

Another technician who will have to be more careful of his work in colour is the art director, who must be an artist—and I mean "artist" in its very best sense. On the "Mikado" the set designer was Vertis, a man who has done a great deal of work for the Continental stage. His set drawings were things of great beauty, but for shooting purposes his sense of form had to be translated into cinematic terms by art director Brinton.

Of the technical crew as such the man who must have the highest artistic sense must, of course, be the director himself, but for the achievement of a truly satisfying colour film a very much closer co-operation between cameraman, director and art director is required than is necessary for black and white.

In the long run the man to whom colour makes the biggest difference is the man who writes the script. He must not only visualise the story but must be able to appreciate how the telling of that story in colour is going to affect his writing of it. He cannot just write his script as though it were for black and white and let the director and the cameraman work it out on the floor. Colour must be written before it can be used intelligently. It must be used because it has an integral part to play in the working out of the theme. Colour increases the range and possibility of script writing 100%. There is a far greater scope for emotional effect, and of the presentation of a subject in colour than could ever be obtained from the medium in which we have worked for so long. The artist-technicians can do their part—we look to the writers to do theirs.

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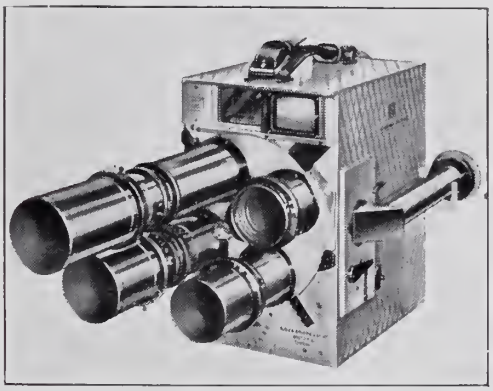

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RECENT ADVANCES IN ELECTRONICS and THEIR APPLICATION to KINEMATOGRAPHY

By A. G. D. WEST, M.A., B.Sc.

The British Kinematograph Society opened its winter session on October 20th. We are pleased to print a summary of the President's address on a subject of importance to all film technicians.

Until the electron tube made possible the introduction of sound accompaniment to the moving picture, there had been no new principle introduced, since its foundation, in the practice of kinematography.

The position of sound talking picture has now been consolidated and we are faced with the next fundamental change due to the incidence of the electronic art on the picture aspect of kinematography. It is imperative that technicians become familiar with the trend of modern technique in this direction.

PRINCIPLES OF ELECTRONICS

Application of the science of electronics (that branch of science which relates to the conduction of electricity through gases or in vacuo) specified the use of electron tubes in which electrons were controlled to do different jobs.

There are four different types of such tubes:—

1. Thermionic vacuum tubes.
2. Photo-sensitive tubes.
3. Gas-filled conduction tubes.
4. Gas-filled lamps.

In every case the process consists of three distinct stages:—

1. The release of electrons from conductors into the tube.
2. The control of these free electrons as they move about inside the tube.
3. The making use of their movement and the energy which they represent in a specific way.

ELECTRON EMISSION

Electrons are produced or released from conductors only by giving them enough energy to break through the surfaces of the conductor. This can be done in five ways:—

1. Photoelectric emission due to action of light.
2. Secondary emission, caused by the impact on a conductor of electrons travelling at high velocity. With certain substances an electron is capable of releasing from one to ten electrons when it strikes their surface.
3. Thermionic emission due to heat.
4. Cold emission of electrons which takes place when the surface of a metal is subjected to the presence of a very intense electric field of force.
5. By ionisation of gases whereby an electron impacting a molecule of gas causes it to re-release a further free electron.

Their movement is controlled in three ways:—

1. By electrostatic field of force.
2. By electromagnetic field of force.
3. Due to presence and motion of nearby electrons.

Their energy is utilised in three ways:—

1. By making them enter a conductor and charge it up, resulting in a flow of current from the tube.
2. By causing them to bombard something in the tube to heat it up.
3. By causing them to impact on a screen consisting of fluorescent material giving rise to light.

CONSIDERATION OF ELECTRON PROCESSES

Certain processes are very familiar and the following are two further processes which have attained very considerable importance in electronic work and illustrate how they can be used in furthering the progress.

SECONDARY EMISSION OF ELECTRONS

It has been found that if a stream of electrons is allowed to bombard a metallic surface having certain definite characteristics, each electron can be made to displace a definite number of electrons, depending on the type of surface which is used. The cold emission of electrons so far has not been made use of with advantage in developing electron tubes, but the use of electron tubes where the ionisation of gases is employed has made great strides in recent years.

ELECTRON OPTICS

The movement of an electron under the influence of electro-magnetic or electro-static fields is defined in accordance with certain well specified and well known laws. The analogy between electron optics and geometrical optics is seen when we realise that corresponding to the laws of the rectilinear propagation of light and the laws of refraction and reflection are similar laws holding for the movement of electrons. It is the study of electron optics which has enabled television engineers to make great progress in the cameras and picture reproducers which they now use.

FLUORESCENCE

The use of fluorescent materials at the present moment constitutes by far the most important of the methods employed for the reproduction of television pictures.

PRACTICAL ELECTRON TUBES

The photo-electric cell is the fundamental device for use in the transmission of vision from one point to another by electronic methods. The maximum sensitivity available at the moment for the type of cell which can be used for this purpose, namely the caesium cell, is about 50 microampures per lumen. If electrons from the photo-sensitive surface, before being led out of the tube, can be made to strike a surface which has secondary emitting qualities, then the electron current can be magnified many times, in cases up to 10 times. If this process can be repeated, then it is possible to obtain much greater effective magnification.

For your future reference, you may find this useful on your Notice Board

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2" F/1.9	2" F/1.9	2" F/1.9	2" F/3.5
2" F/3 5	2" F/3.5	3" F/1/9	4" F/3,5
3" F/1.9	4" F/3.5		9" F/5.5
6" F/4.5			

CAMERA No. 6	CAMERA No. 7.	CAMERA No. 8.	CAMERA No. 9. TURRET HEAD
2" F1.9	2" F2.9	1½" F/1.9	1" F/1.9
4" F3.5	4" F3.5	2" F/3.5	1½" F/1.9
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MULTIPLIER THERMIONIC VALVES

Such principles can be adapted to give high amplification thermionic tubes. The Philips-Mullard secondary emission valve, Type TSE4, is the first practical example of such a tube. The practical use of such a valve is best demonstrated by comparing what was regarded two years ago as a radio amplifier for television of the highest efficiency with today's product of the same type.

ELECTRON IMAGE TUBE

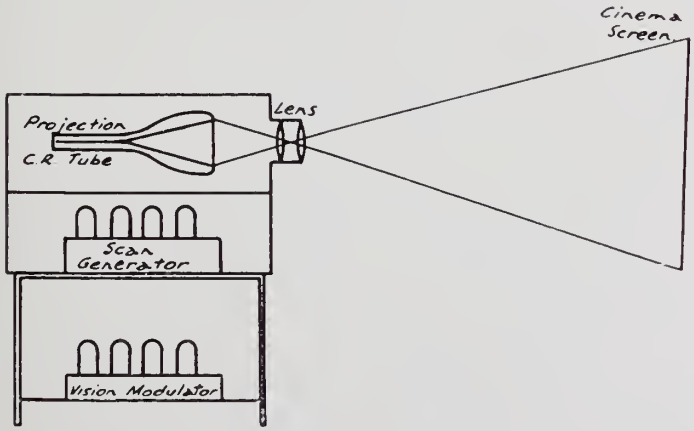
The image converter tube clearly shows the analogy between electron optics and geometrical optics. It consists of a vacuum tube having two comparatively flat ends, one of which is occupied by a photo-sensitive surface, the other by a screen of fluorescent material. A light image is projected on to the photo sensitive surface by this little film projector. The electrons which are released from the photo sensitive surface, more from the light parts and less from the dark parts of the image, are concentrated by the electron lens on to the fluorescent screen where a visible image of the original is reproduced.

ELECTRON MICROSCOPE

The original electron source is not in this case a picture but a small, almost point source of electrons produced at a thermionic cathode. A device of this nature is called an electron gun. At the other end of the tube is a fluorescent screen and an image of the small source can be formed on the screen by means of the electrostatic electron lens system formed by the anode of the tube. If in addition we have another lens formed by current in a coil of wire round the tube we shall have a two lens system, resulting in a greatly enlarged image of the small cathode on the fluorescent screen. This device is called an electron microscope.

PRINCIPLES OF SCANNING AND THE STORAGE PRINCIPLE

In electronic television the scanning of a picture and its reconstitution at the receiver are both performed by means of a cathode ray beam of electrons. As regards the transmission of tone values to give a visible picture, the analysing scanning beam transforms the light values of the individual elements of the scene into electrical impulses which in turn control the intensity of the beam at the receiver to reproduce each element of the received picture at its correct tone value.



CATHODE RAY PROJECTION

Figure 1.

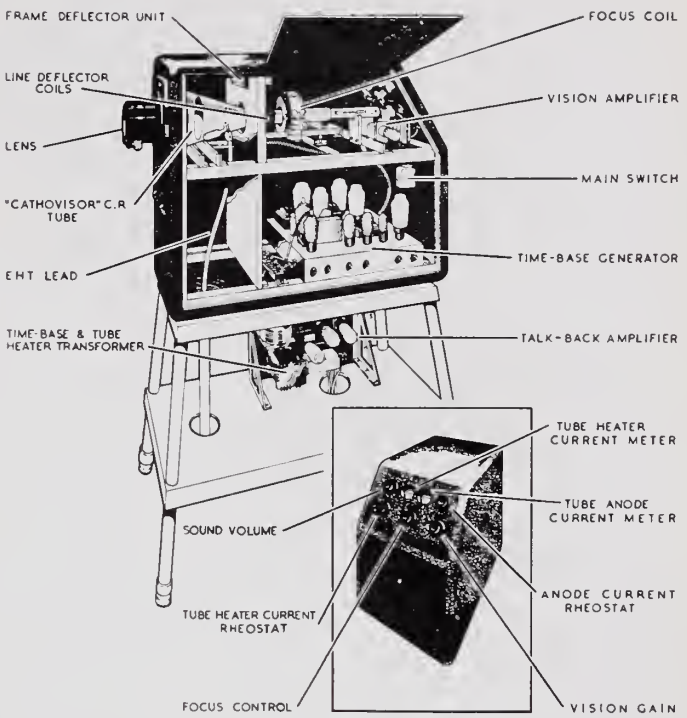


Figure 2.

Latest type of Baird Cathode Ray Tube Projector for the Cinema.

The problems of sensitivity in the pick-up, and of the brightness of the received picture, both depend primarily on the standard of definition selected. The problem has been partially solved by applying a principle, which is probably of greater general importance than any other recent development, namely the storage of the action of light in each element of the picture, for the full period of time between two successive traversals of the scanning beam over that element.

CATHODE RAY TUBE AS REPRODUCER

For a complete transmission system it is necessary to transmit continuously four separate items: the vision signal (representing the value of light or shade) at any given moment, the line synchronising control, the frame or picture synchronising control, and the sound. These can be combined, the first three into one channel and the last into another channel, giving two channels of transmission which may be either two radio transmission links or two cables between camera and reproducer.

COLOUR & BRIGHTNESS OF CATHODE RAY TUBES

Recent researches have been devoted in general to two things:—

1. The production of light of any colour.
2. The attainment of much greater brightness

The attached figures (1) and (2) show what can be done in the direction of large screen projection from a small brilliant cathode ray tube. Fig. 3 shows the rate of progress during the last two years in the illumination of the large screen by this method and it is fairly clear, as there are at the moment no vital stumbling blocks apparent, that results will eventually be achieved which will not suffer as regards brightness by comparison with the normal cinema projection.

APPLICATIONS OF ELECTRONICS TO THE PRESENT SYSTEM OF KINEMATOGRAPHY

Applications to Sound: The applications of thermionic multiplier tubes and multiplier cells in this particular field can have great results by introducing compactness into the equipment with possible improvements in quality of reproduction. Also I see useful immediate applications of cathode ray tubes to sound recording control—even recording itself; also to providing new measurement devices for studying the acoustics of cinemas, and the distribution of sound in them with, finally, the automatic control of sound volume to a given standard.

Applications to the Picture: For the picture in its progress through the camera, processing, printing and projection stages, even though a fixed technique exists which has little relation to the electronic art, I can see many minor uses for electronic methods which would be of great assistance in saving costs of production and providing a more uniform product. An interesting example of research is taking place in studying the grain size of various emulsions and the effect on gain of the processes to which the emulsions are subjected. This has been done very effectively by means of a recording microscope using a photo-electric cell, thus making it possible to give a reasonably true measurement of the grain size and of the distribution of different sizes of grain. The use of photo-electric methods of light measurement is by no means universal amongst cameramen, but I believe that if scientific methods were adopted in this connection and if film printers were available with an automatic photoelectric control of the printer light (which could be used in all cases except where special effects are desired) then there would be much saving of time spent in the process of estimating printer exposures, and much greater uniformity achieved throughout prints distributed for projection. Such uniformity or rather standardisation of prints will become a very necessary matter when the problem of screen brightness is solved as it will be, in all probability, with photoelectric methods.

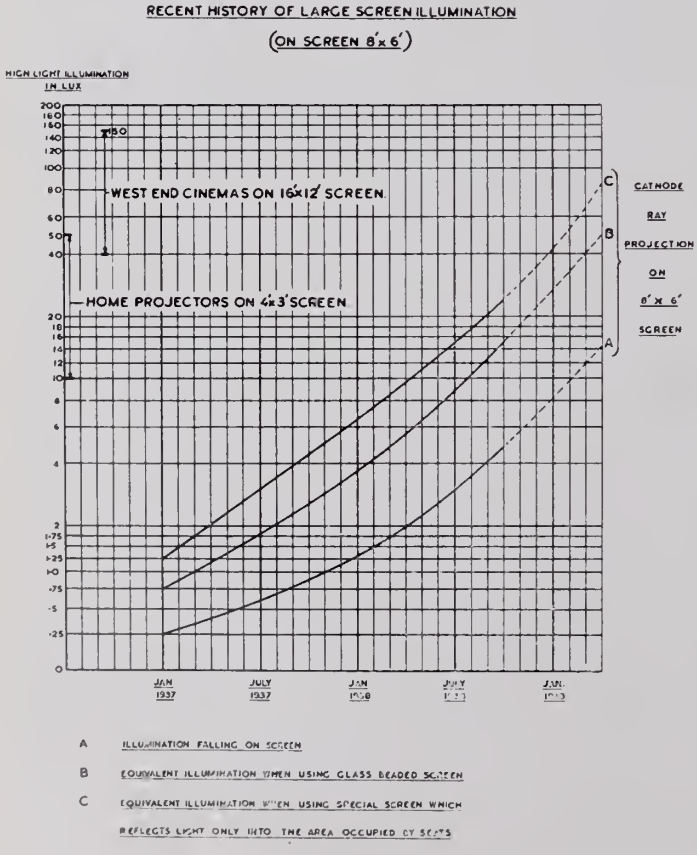
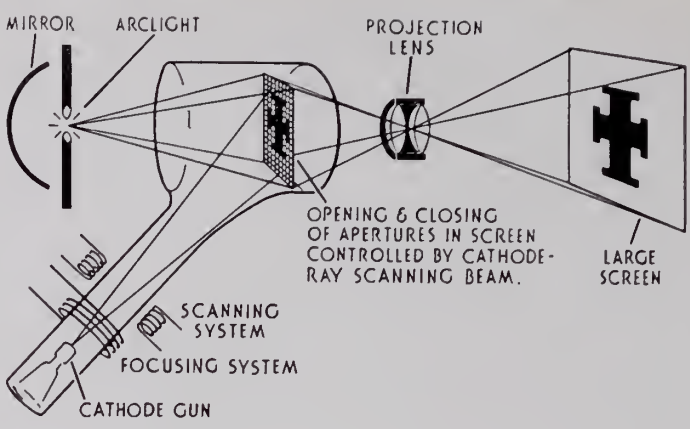


Figure 3.



STORAGE PROJECTION SYSTEM

Figure 4.

From the point of view of studio lighting there appears to be a great future in the gas discharge lamp as, for example, the high pressure mercury vapour luminescent powder lamp.

THE POSSIBILITIES OF AN ALL-ELECTRONIC SYSTEM

The following general types of equipment are available at the moment:—

1. A camera which can be used under reasonable conditions of lighting. It has certain faults such as small depth of focus, and the presence of certain shadow effects which occasionally mar the picture, and insufficient detail for our purpose and also possibly a limited contrast range. I am being critical.
2. A method either means of a short wave radio relay or a cable connection of limited range, whereby the pictures provided by the camera, used either under fixed studio conditions or interest items, are linked to a central distribution system in a manner which, though often successful, for the time being cannot be regarded as showing 100% reliability and quality.
3. A radio distribution system which though thoroughly effective as far as it goes, has a very limited range, says only 20 miles or less, where reception can be guaranteed free from interference. As an alternative we can visualise a high definition underground cable distribution system which can have a reasonable range but the setting up of which involves the expenditure of a very large sum of money.

(*Continued at foot of page* 116)

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AND AFTER

Thousands and thousands of Trade Union members have benefited from the welcome extension of the Holidays with Pay movement. Thousands more will be doing so next year.

Many Union members receiving Holiday Pay will no doubt wish to take their families away with them for a week by the sea or in the country. To know that the whole family is enjoying a healthful holiday will in itself be a source of happiness and peace of mind. To have a family holiday—and indeed to have any holiday that is to be of maximum benefit—Union members will do wisely if they resolve to supplement their Holiday Pay by personal savings.

Preparation for next year's holiday should be going on now, and the most convenient way of putting by a bit of money for it week by week is to join a NATIONAL SAVINGS HOLIDAY CLUB. Clubs of this kind have already been established in thousands of places of employment throughout the country, providing employees with a secure means of saving personally for holiday purposes.

Trade Union officials are in some industries doing valuable service for their members by encouraging the setting up of National Savings Holiday Clubs in Works, Factories, Offices and other places of employment.

The National Savings Committee offers every assistance in the organisation of such Clubs, including the provision of a speaker to address prospective members and in providing an explanatory circular letter for distribution. Membership cards, literature, etc., are supplied free.

Enquiries should be addressed to the
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THANK YOU, MR. STANLEY

A second open letter to the President of the Board of Trade

Dear Mr. Stanley,

We wrote to you in these pages eight months ago. We are still hoping to hear from you in reply. You will remember that we reminded you of the capabilities of British technicians and asked if you would give them a chance to get back to work. We thought it wasn't asking too much. Apparently we were mistaken. While you were steering the Cinematograph Films Bill through the Houses of Parliament you were not unaware of the fact that eighty per cent. of British film production workers were unemployed. We looked to you to remedy this. Now we merely feel that the initial date of the operation of the new Act—April 1st—was more appropriate than even the biggest cynics forbode.

Perhaps one day you will visit Wardour Street. You will see many people there. They hoped you would help them once. Now they are just waiting for the job which the inadequacies of the Government's legislation ensures will never arrive. Perhaps you will look into the A.C.T. office. We hope you will. The following are just a few extracts from many of the letters we could show you.

"Eighteen months ago I had a car and small boat—both sold at a great loss to pay to live. Sold articles of furniture and effects for same reason. Landlord put bailiffs in and removed and sold whole of contents of my place. All pawnable articles of jewellery, belonging to my wife and myself, are pawned, together with one of my cameras.

Served four and a half years in the Great War (four medals). Invalided out with rank of Lieut.-Colonel. No pension.

Am still waiting for a job."

That technician has now got a job, Mr. Stanley. He is a temporary clerk at a Labour Exchange.

Then we could show you a letter from a member who at one time was a sound recordist and maintenance engineer. He was one of the 80% and eventually took a job as a radio salesman working 80 hours a week and earning, with commission, if lucky, £4 a week. Then he became ill through overwork. His next job was at £2 10s. 0d. a week, during the course of which he received a call from a studio offering him two days' work. He had to refuse it as he could not risk losing his £2 10s. 0d. job outside the industry.

We could tell you of the film editor who used to earn £20 a week. He is married and has a child. He became a bricklayer's labourer.

An assistant director wrote us the other day. He had saved £250 over a period of years. That has now gone and he is considerably in debt. He has just landed a job and is back in the industry. He writes to tell us that he is the only member of his original unit who still has connection with the film business. "The director is abroad in some two-pence ha'penny job, the production manager is in a motor firm, the secretary is in a commercial office, and the two assistants are still out of work." He says he is bitter and very pessimistic. Can you blame him?

A camera operative writes to say he has been more fortunate than most. He has averaged about thirty-five shillings a week during the past eighteen months.

Some films are still being made, you may say. That provides work for somebody. The following letter may help you assess the value of it. It's from a leading technician at present at liberty but who has done some work during the year. He says: "It would appear now that reputation and good work do not count nowadays but rather it is the price that really matters—as long as there is a man with the unit who can *expose* a film and *make* the print, the *quality* obtained does not apear to enter into it at all! 'How cheaply can we hire So-and-So?' would, I think, sum up the chances of a good still-man nowadays. What has the still-man done except do his best under lousy conditions (more often than not) to assist in the sale of the production to which he has been 'allowed' to attach himself at a much below recognised salary?"

There is the old problem of the foreign technician. You will remember that our proposal to reduce the amount of foreign labour employed in film production was not accepted. To-day it is harder than ever for the top-grade British technicians to land a job. We will quote just two cases among many. The first—a lighting expert of good standing—has not worked since his studio closed down a year or so ago. He has a wife and children to support. Another has had one job and earned exactly £90 during the past twelve months. One of them writes: "The cameraman is hardest hit by the importation of foreigners. Many of the foreign cameramen over here are no better

(Continued at foot of next page)

RECENT ADVANCES IN ELECTRONICS

(Continued from page 114)

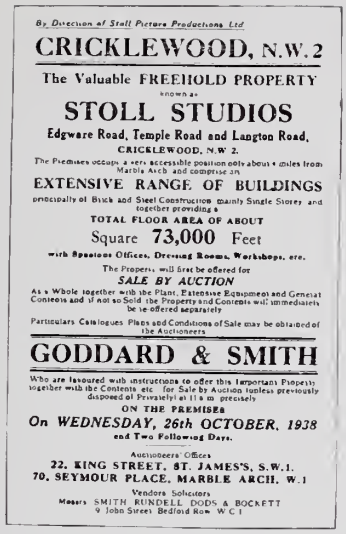
4. A receiving and projection system which provides a screen illumination only a quarter or even less of what the average cinema requires and which uses equipment whose life and reliability have still to be proved.
5. A complete sound pick-up and reproducing system which can provide anything in quality and range that is demanded of it.

Thus we have in a completely electronic system in general, at the moment, and as far as the picture part is concerned, nothing to compare technically with what the present established system of cameras, negatives, prints and high illumination projectors provides.

FUTURE RESEARCH WILL PROVIDE THE SOLUTION

Remedies for all the above mentioned deficiencies are in their fundamentals envisaged not only by the research theorist but by the practical scientist. Much research has still to be done. It is reasonably safe to predict that all the processes of taking pictures and of distributing them to large audiences are likely to be revolutionised by the electronic method, which though now only in its early stages will undoubtedly in time provide, by less cumbersome methods, all the entertainment and education and interest required.

It has often been suggested that television in the home will eventually have a devastating effect on the attendances of cinema audiences. Personally I don't think that universal home viewing will have such an effect. The new opportunities in cinema entertainment presented by the advances of television technique appear to have great potentialities. Meanwhile it is our duty to be certain that all the members of our industry are accurately informed with regard to technical progress, so that when the time comes no opportunities are lost of taking full advantage of technical developments as and when they are perfected.



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A STUDIO PASSES

by —

SIDNEY COLE

OUT of the door came a ducal carriage complete with coat of arms, accompanied by a man who clutched in his arms an assorted heap of wash basins, pipes, taps and toilet-roll holders. The auction sale of the contents of Stoll Studios at Cricklewood was over, and the buyers were beginning to take away their lots. The ducal carriage had once figured proudly, and the other objects less glamorously but no doubt just as usefully, in a chapter of the history of the British film industry which had now come to an end. At a moderate estimate the value of what was offered at that three-day sale was £200,000. When the results of the three days' offering and bidding were totted up, it was agreed that Stolls were lucky if they had got more than £6,000 for the lot.

The ducal carriage was knocked down at £12 10s. The contents of the star dressing room answers the query "What price glamour?" with fifty bob. A Mitchell camera (cost when new £1,200) which had been sent back to Bell & Howell within the last two years for overhaul at a cost of £250, whose eleven lenses cost at least £150, and which, moreover, had been remounted recently at a cost of £180, whose six magazines are worth £25 each, and whose tripod is valued at £75, went for £350. The price is no reflection on the camera—it is merely another straw in the wind that has been blowing steadily against the British film industry for the last two years. The Stoll back projection apparatus was the pride of Desmond Dickinson and the other Stoll technicians who invented and constructed it themselves. It gave some of the best back projection results this country has seen, besides evoking the admiration of visiting American executives. So that when it was knocked down at £250 the buyer got—if I may be sentimental for a moment—not merely a good piece of apparatus but something of the constructive endeavour and pride of craftsmanship that British technicians have shown in the past and are willing to show again whenever they get the chance.

"Ninety-eight film tins" were offered without receiving a bid—the bids could not have been less, it was remarked, if there had been film in them. A developing and drying machine went for £2 10s., and a printing machine for 15/–. The cinematograph rights to a large number of stories by such authors as Phillips Oppenheim, Alfred Tennyson, P. G. Wodehouse, Reginald Berkeley, Maurice Hewlett, Baroness Orczy, Keble Howard, Morley Roberts, Selwyn Jepson, Edgar Wallace and H. G. Wells found no buyers. Indeed no bids at all were made for any of them, except £1 for the rights of Wells's novel "Kipps." This was made by a gentleman who turned out to be the author's son, Frank Wells.

The moviolas fetched fairly good prices, as did the still cameras, but generally speaking everything specifically connected with film making received low bids, and articles of general use, such as Tansad chairs and general fitments, did well. Several miles of cable and flex were sold for good prices, but not for future use in supplying light for a few more British pictures. They went to scrap merchants because the copper they contain is valuable in these days of rearmament.

In the last year or so there was a revival of interest in Stoll's, because of the modernisation of much of its plant. Five pictures were made there during the first six months of 1938, apart from shorts. Things looked a little brighter despite the slump. But this was the last gasp. Negotiations for the use of the building and site for aircraft work put a stop to production.

Stolls had worked at the Cricklewood plant for 17 years, since 1921. They had known the heights of successful supers and the depths of non-production. But the history of the Stoll Company itself goes back earlier. About 1918 the American companies did not have their own distributing organisations in this country but marketed their product through English firms. Stolls started as the marketing medium for Samuel Goldwyn pictures, and did very well. They decided to try production for themselves. They hired the old London Film Co's. Twick-

THANK YOU, MR. STANLEY

(Continued from previous page)

than, if as good as, our own men. The original reason for foreign cameramen being allowed to work here was because producers said they could not make good pictures without them. Did they make good pictures with them? I don't have to answer this question. The conditions of the industry answer it for you."

It's good to be alive, isn't it?

Yours, More in sorrow than in anger,

THE ASSOCIATION OF CINE-TECHNICIANS.

enham studio, for Maurice Elvey to produce and direct "Comradeship," starring Owen Nares and Lily Elsie. This proved to be a great success. So much so that they took the Boat House studios at Kew Bridge the following year and Elvey produced "Mr. Wu" there, with Matheson Lang. This studio had previously been used for the Billy Merson "Homeland" comedies, which were directed by W. P. Kellino and photographed by D. P. Cooper. It is now a public house and dance-hall.

Meanwhile, Goldwyn in America had embarked on a series notable in the history of the cinema, called "The Eminent Author Series," the idea of which was to pre-sell films to exhibitors on the name value of their authors. It should be remembered that at that time in England as well as in America films were "block booked" and "blind booked" as much as a year ahead.

It is alleged (those interested can verify by consulting the trade press of that period) that Goldwyn decided to get out of his contract with Stolls when launching a new "super" of his, outside the series, called "Earthbound" (I believe Walter Wanger was the salesman in charge of its exploitation and distribution). The contract stipulated that Stoll's had the sole marketing rights of Goldwyn pictures made in America and exported to this country. Circumventing this arrangement, the story goes, was done very simply by not exporting any pictures to Stolls at all. This, of course, left the English company in a jam. They had contracts with a vast number of English exhibitors for months ahead to supply them with Goldwyn pictures and they were getting no pictures. To meet the situation Sir Oswald Stoll called a meeting of exhibitors and announced that with their agreement he intended to start a rival series, for which he would make stories by such authors as Phillips Oppenheim and Ethel M. Dell, to be supplied to the theatres at the rate of one per fortnight in place of the Goldwyn pictures. The exhibitors agreed and production started. The Regent House at Surbiton, which had previously been the home of M. Nicol, proprietor of the Café Royal, but was already a studio, was taken over, with Maurice Elvey as Director General of Productions. The film directors included Martin Thornton, Harold Shaw (an American), Sinclair Hill, who started as a writer but soon turned to directing, and George Ridgewell, who gave £1,000 to set up the first Kinema Club. Ridgewell, like others, practically starved during the "black" years of 1925 to 1927; he died a few years ago as a result of it, shortly after he had become contact man for Gaumont-British News. The first year's working showed a handsome profit. The company intended to extend and improve the Regent House ballroom, which was the actual studio, but the local council, it is said, objected to the building of a "factory" in their select neighbourhood. Consequently the company moved to the building at Cricklewood.

This had been built during the war as the Nieuport Aircraft Factory, and is the building that went under the hammer. A few years after this move the producing and distribution sides of Stoll's were merged. Distribution for some time thereafter was in the hands of New Era.

The first year's working at Cricklewood showed £49,000 profit. The decline which set in later was due, veterans tell me, to an attempt to make too many pictures too quickly, in the hope of even better results. But unfortunately better pictures are rarely made in that way, and I believe it is true that the Stoll Company from that period on paid no more dividends. (Elvey was against this policy, and resigned, to spend the next few years with Fox in Hollywood. His "Dick Turpin," "Sherlock Holmes" series, and Matheson Lang pictures had all been successful money-makers). There were times when as many as six films were being turned at the same time. One unit would have to wait until the next had finished its scene in order to borrow the lamps for its own, and frequently the sets of two productions would be built across each other. There were periods, too, when Stolls stopped producing and rented out the studios to such firms and persons as Herbert Wilcox, British and Dominion, Welsh-Pearson-Elder and Miss Dinah Shurie. From 1922 or 1923 onwards, in fact, the studio had a checkered existence whose high-lights were the production, among others famous in their day, of such pictures as "The Guns of Loos," directed by Sinclair Hill and starring Madeleine Carroll, "A Woman Redeemed," also by Sinclair Hill, with Brian Aherne starring, "The Glorious Adventure," the first big all-colour picture, directed by Stuart Blackton, and Anthony Asquith's first picture, "Shooting Stars."

The last silent picture made at Stoll's was never shown. It was "The Price of Divorce" and starred Miriam Seegar, American star now married to director Tim Whelan. It was never shown because sound had by then hit the entertainment world and nearly everybody had to start thinking again in a hurry. The Stoll Studio was dormant for nine months, until the Marconi Visatone sound system was installed for them by Captain Round.

Stoll's first sound picture was "Such is the Law," for Butchers, directed by Sinclair Hill. It used up such scenes of the unseen silent, "The Price of Divorce," as could be fitted into a different cast but similar story.

This period for me is modern times. My first job in a studio was at Stolls just after they had finished shooting this picture. There must be few technicians who entered the industry before the beginning of 1930 who did not have some contact with this studio that has gone. Their memories would be assorted but they would probably agree that the history of this studio is the history of much that was good and exciting in the postwar days of English film production. I would like to pay one tribute to its method of working in those days, when Sinclair Hill was director of productions. Before a picture went on the floor they had a script conference. This too often merely means four or five people agreeing as hard as they can with the producer. And nowadays having any script conferences at all seems to be an obsolete custom. All the more honour to the Stoll units of those days who had *real* script conferences. The complete script was read through by the scenario editor (Leslie Howard Gordon) to the entire unit. The technicians affected by any special scene could discuss its exact details with the director and with each other in advance, and everybody went on the floor knowing exactly what the picture was about (a rare occurrence today even in the most stream-lined and chromium-plated studios).

But perhaps even more important, these conferences meant that the unit went on to the floor as a unit, as a team, with a sense of working together to produce as good a picture as they collectively could make.

And that's a pretty good epitaph.

(Note.—The author acknowledges gratefully the co-operation of various directors and technicians in writing the above article).

THE PRIMATE AND THE CINEMA

At Lambeth Palace recently, the Archbishop of Canterbury, President of the Cinema Christian Council, referred to the radio and the cinema as perhaps the two most modern powerful agencies for moulding the outlook and character of our people. He paid a tribute to the B.B.C. The cinema had obviously developed on other lines, and while much was due to the British Board of Film Censors and the British Film Institute, yet only a measure of control could be exercised. While the technique was perfect and no guidance could be given in that direction, there still remained the task of raising the moral and by the immeasurable future it has before it. Religious had a great opportunity.

The Archbishop said: "The more I see of this tremendous art and its advance, the more impressed I am by the immeasurable future it has before it. Religious films, however, must be of the same sort of technical standard as that of the commercial cinema. The work of the C.C.C. may have been inadequate, but it has proved that some such Council is necessary if only to show that the moral and spiritual forces of the country are not indifferent to the development of this new and important influence on public life."

The officers of the Council were re-elected as follows: *President*, the Archbishop of Canterbury; *Vice-Presidents*, the Archbishop of York, the President of the National Free Church Council, the Moderator of the Federal Council of the Evangelical Free Churches; *Chairman*, the Bishop of Lichfield; *Vice-Chairman*, Mr. J. A. Rank; *Hon. Treasurer*, the Rt. Hon. Sir Montague Barlow, Bt., P.C.; and the *Secretary*, Mr. T. H. Baxter, F.R.G.S.

The Annual Report stated that the Viewing Panel, which had been set up in collaboration with the British Film Institute, had viewed 36 films during the year, and their reviews had been published in the Monthly Film Bulletin. The advice of the Panel had also been sought as to the suitability of other films for religious purposes. At the request of the Archbishop of Canterbury an *ad hoc* Committee had been formed to advise him on the subject of the production and use of films by the Church of England.

The date of the next Religious Film Summer School was fixed for May 30th to June 2nd, 1939. It is to be held again at High Leigh, Hoddesdon.

TOO HOT!

(*Continued from page* 128)

There are certain home truths in the film. For instance, the writer of this article, who is not employed in newsreel production, believed the scenes in the Company's office were exaggerated. He is, however, assured by workers in newsreel companies that the apparent madness which is depicted on the screen is no sense an exaggeration, and that at any rate certain newsreel executives have been known to act as Walter Conolly behaves in the picture—sometimes with very good cause.

A further important point which is brought out by this film is that the "scoop" is more important than the actual picture, and a newsreel colleague with whom I discussed the film tells me of a case when a cameraman in his firm reported to the Company that he was sorry he had completely missed the Royal Coach, which he had been sent out to get, but had got a picture of a policeman falling off his horse owing to the crush. As no other reel had got this picture his Company were quite satisfied.

The publicity describes the film as a story of daring newsreel men who face death daily to bring the news of the world to the screen. We do not dispute this fact. We know it is all too true. But on the screen a story which at times gives a false slant on the work they do and typifies them as crooks is not one that will bring prestige to the newsreel business.

We hope that one day Laurence Stallings and John Lee Mahin will write the story of which we know they are capable, and that it will be filmed as a true story of the hazardous work of newsreel cameramen. Moreover, as the *Cinema* says, it does not appear to have been altogether wise to place so much emphasis upon the faking of shots by cameramen unable to supply their chief's demands.

OBITUARY

It is with very great regret that we have to report the sudden death on November 7th of OSCAR F. WERNDORFF, leading British Art Director and A.C.T. member.

Mr. Werndorff was born in Vienna but had worked in the British Film Industry for some while and for the past few years has been a naturalised British subject. He began film work in Vienna in 1913. From 1921 he was in Berlin with Ufa and other companies. He came to England in 1926, commencing work at Gainsborough Studios, subsequently going to Gaumont. He has recently been working at Denham. His pictures included "City of Song," "Dark Red Roses" and "The Bells" at Wembley, in the days of the A.S.F.I. company; and more recently "Secret Agent," "The Lady is Willing," "Rhodes," "The Tunnel" and "King of the Damned" for Gaumont-British.

We extend our deepest sympathy to his widow.

SHOOTING IN HOLLAND

by

BRYAN LANGLEY, A.R.P.S.

ON July 27th I returned from shooting Dufaycolor exteriors in Ireland. Upon arriving home, I put out lots of 'phone calls. I found that the film business was more vague and the future more uncertain than ever. As a free-lance, however, I like to think, with Mr. Micawber, that "something will turn up." With this in mind the obvious course was to relax in an armchair. After half an hour or so of relaxing the telephone bell rang and the operator asked me to stand by for a call from Amsterdam. My thoughts were that someone had the dates mixed and believed it to be April 1st. However, after standing by, the bell rang, and a thin voice said "Hullo Bryan"—it was Fred Zelnik. He told me that he was about to make a Dutch film of "Daddy Longlegs" and would I come over and shoot it.

So on Tuesday night the boat train left Liverpool Street Station with me aboard—bound for Amsterdam.

At the Hook of Holland my labour permit was examined so long that I became very nervous and thought that there must be some irregularity in it. Eventually the customs man looked at me from behind a grille—a big lump came in my throat as the idea struck me that perhaps it was me that was behind the grille. He said, "I wish you every success on the picture 'Daddy Longlegs'."

Of course then I knew that it was him that was behind the bars. I was very pleased because the fact that he knew about the picture meant that lots of publicity must have been circulated and the picture must be an important one. After this, breakfast on the electric train to Amsterdam—brownfaced people speaking all kinds of languages—me eating bacon and eggs—honeymoon couples drinking cups of coffee and gazing at one another with adoring though sleepy eyes—in the corner a marvellous blonde (with an obvious "sugar daddy"—not an experienced one from his very selfconscious look). The steward spoke all sorts of languages and charged me a price for my breakfast which compared very favourably with those on English trains.

In Amsterdam my good friend Mr. Zelnik and my two Dutch assistants, Frits and Prospair, were waiting, to take me to the house of Rudolph Meyer, the producer, who was very charming. I was introduced to his wife, and to his dog, Mousie, a Dutch film star like Asta, who was destined to cause me a lot of late nights at the studio. Mr. Meyer gave me a big cigar and sent me off with Frits to find accommodation. In the streets everyone was smoking cigars—Amsterdam, I thought, must be populated by millionaires, so I lit mine to be in the swim. Later Frits told me that they cost 3d. each.

Later I was shown the star's previous picture, a Dutch version of Bernard Shaw's "Pygmalion." An excellent film with magnificent acting by the star—Lily Bouwmeester. Then we did some nosing around the studio. There are two stages—in all about the size of Welwyn Studios. Two Super Parvo Debries with Astro lenses, a Vinten run-truck, Vinten boom, Tobis Klangfilm sound, a lab. with a German automatic developing machine having glass tubes, in shape rather like the Debrie developing plant at Elstree. A Debrie printer and Leitz sensitometric apparatus. The only snag was the lamps. The incandescents were by Weinert, having facet mirrors only, five kilowatt, three kilowatt and two kilowatt. The arc equipment was also by Weinert—1,000 mm., 700 mm., 500 mm. They had one 500 watt spot lamp by Weinert, the only condenser lamp in the place. So we hired some spot lamps from the theatre—one 1,500 watt, one 500 watt, and one 80 amp. They were not entirely satisfactory because of filament marks but this trouble was eliminated by the aid of a very ingenious device fitted to the front of the lamp to carry five different coloured gelatines for stage work. The gelatines were cut out and diffusing media substituted. You pulled a string and up out of a box popped a hammered glass, or a silk, or a gelatine, or a wire. This is a very good idea which could well be adopted here.

Bryan Langley on the camera at the Cinetone Studios, Amsterdam.

Then came the day for make-up tests. It was very worrying for me for the following reasons. First, the lamps. Using incandescent lamps having facet mirror reflectors was something that had never come my way. Second, the negative—they had bought Eastman Harrow Super X. I had never used this stock before. The tales about it that go around alarmed me, and in spite of Mr. Wratten's assurance that it was good I still felt very nervous. During the shooting of the picture the quality, latitude, and consistency of this negative material kept on surprising me. In fact, we ran out of it one day and continued shooting on Rochester. It was impossible to tell the difference. Thirdly, and most important, the people themselves. They were all looking at me and expecting me to make magic. Everyone came to have a look. Well, we did these tests, and in the course of time we saw them. The hand tests looked all right. I

measured the light with my Weston Foot Candle Meter so that the exposure was exactly the same as in England. But on the screen they were terrible, horribly dark. It was most embarrassing. One of those situations of which Bateman makes such amusing cartoons. I said nothing —"least said soonest mended." Neither did anyone else. There were so many possibilities. My meter might be broken—the Astro lens at f2.3 may be slower than indicated—the shutter on the camera might be closed a little—the light from these facet mirror lamps was definitely yellowish—the negative might not be dense enough for their printer—the projection light might be weak. We had been on exteriors all day, so I had not seen the lab. man and had heard nothing about the negative. As we were trooping out of the theatre, me very downcast, I noticed the screen. It was deep yellow from dust. Feeling rather like Archimedes must have done when he said "Eureka," or Columbus when he discovered America, I asked for the screen to be changed, and all was O.K. Now they talked, and made me Witch Doctor No. 1.

Having got over this very stiff hurdle, we started to light the set. This was a very beautiful decoration, the interior of an "Orphan House" with a real marble floor which sounded very good and picked up the light in a fascinating manner. The art director, a Dutch architect called Wegerif, one of those men who have caused Holland to be called the "Mecca of modern architects," paid especial attention to the floors. We had marble floors, floors of tiles, floors of enormous geometric design, and wooden floors. In most of the Dutch paintings which I have seen, the floor plays a very prominent part in the design of the whole picture—subconsciously it may be due to the fact that the floor is the foundation of all visible parts and therefore must be the boldest and strongest.

Their lamps gave me a lot of trouble. Black centres and leak light. Black centres I can deal with, but this leak light problem stumped me. The *lichtmeester* (charge hand) recommended the use of *arfdeckers*. These are wooden squares which clip on the lamps and can be adjusted to a very fine degree—they are more efficient than the iron snoots which are used here.

The working of the unit is not as in England. In the office was the producer, Rudolph Meyer, and two assistants. They did whatever they do in offices, and because everything was ready and went like clockwork they must have been very good. All the production details came from the offices, which also organised the standing-by of artistes. On the floor was the director, Mr. Zelnik; the script girl, Frau Klein; the dialogue lady and general interpreter, Mevrouw Peters; myself; camera operator Frits; focus Prospair; clappers Butter; still-man Bobby Rosenboom; the sound crew, electricians under *lichtmeester* Killymeyer, and two carpenters, Hank and Art. We had no assistant directors on the floor and no props. Hank and Art acted as grips—moved things, laid tracks—pushed the runtruck and were generally useful. When essential props were needed or there was a rush the property master appeared and gave a hand. When Mr. Zelnik wanted quiet he shouted in German "Ruke Bitte," I said "Quiet please," and Hank bellowed "Stilte." Critroen, the sound mixer, sounded a diabolical klaxon horn and flashed red lamps. The result was that everyone was as though petrified, and stayed so until the klaxon brayed twice. Everyone obeyed the klaxon implicitly.

SEE

The new World Film News

—may shock you, startle you, surprise you, amuse you—but it will never bore you. The toughest, brightest, most vital of all movie magazines, publishing the best film writing from both sides of the Atlantic

One Shilling per copy . . . Monthly from all bookstalls

The team work in Holland is terrific. A picture sells strictly on merit. There are no quotas and no immense organisations for distribution. Consequently it is a very personal matter to everyone, from the office-boy to the producer, that the picture shall be a success. This attitude is shown by a remark made to me by a "spark": "Lousy picture, no work; good picture, more work."

The production car picked me up at 7.45 a.m. and we started work at 8 a.m. This eight o'clock business horrified me at first, but I soon got used to it. Another, to me, amazing thing was the lunch-hour break of one hour. It might happen at any time. The reason for this disregard of my almost religious belief that one o'clock is the proper time for lunch seems to be that lunch is an unimportant meal there. One eats rissoles, eels, bread and butter, all simple things, much the same as we have for supper. But at dinner, they make up for lost time and eat and drink enough to sink a battleship.

My Sundays were very pleasant days, spent with my friend Bobby Rosenboom, our still-man, on loan from the famous old-established Dutch firm of photographers, Merkelbach. (They took stills of Mata Hari during the war). Two Sundays running we went to the museum and admired the works of Rembrandt and Van Hooch. The importance of composition was very greatly impressed on me by these masters. What wonderful colour cameramen they would have made. The Editor of "The Amateur Photographer" would have a fine time dissecting these pictures and resolving them into curves and circles and points of interest. On other Sundays we explored the enormous Zuyder Zee (South Sea) by boat and by car. It has been separated from the North Sea by a dam, and is becoming a fresh water lake. All the sea fish trapped in it by the dam are dying. The Dutch are damming to reclaim land, and ultimately all the Zuyder Zee will be reclaimed with, of course, channels for irrigation.

News has just come that the picture is a tremendous success and packing the cinemas. I am very glad. They deserve every success. I am very grateful to have had the opportunity of working there—of enlarging my experience and my circle of friends.

TOT ZIENS (See you soon).

* * *

RUSKIN COLLEGE

The Trades Union Congress General Council have approved of an appeal being made on behalf of students at Ruskin College to the various Trade Unions in the country. This year there are 18 students, all wage earners from a variety of occupations, who hold scholarships which require supplementing before they can make use of their awards. Donations are being asked for this object.

To Ruskin College go wage-earning students, many of them with assistance from Trade Unions, Co-operatives and similar bodies. The list of activities of former students makes imposing reading, including 18 past or present M.P's., 22 trade union officers, many distinguished educationists, and more local government representatives than they have space to mention. A fine record indeed, and an institution well deserving any help that can be given.

A.C.T. Winter Programme

The usual winter programme of Lectures and Film Shows has been arranged by the A.C.T. Technical Committee. As previously, all meetings, unless otherwise stated below will be on **Thursday evenings** at the Crown Theatre, 86, Wardour Street, W.1., by kind invitation of Mr. V. Gover. They will commence at 9 p.m.

Technician and one guest will be admitted on production of A.C.T. membership card.

A printed syllabus has been issued and copies have been sent to all members. No further intimation of meetings will be given. Members are therefore asked to keep the card and note the dates.

As usual, reports of all Lectures will be published in *The Cine-Technician*.

The programme is as follows:—

1938

Oct. 29th (Saturday)

"The Technique of Sound Recording" by T. S. LYNDON-HAYNES, A.R.P.S., to the Federation of Cinematograph Societies, at the R.P.S., 35, Russell Square, W.C.1. 2.15 p.m.

November 3rd

"Recent Documentaries," by arrangement with the G.P.O. Film Unit, Strand Films, etc.

November 17th

"Sub-Standard Processing," by A. W. BOWLER, A.R.P.S.

November 25th (Friday)

"Building a Star," by The Hon. ANTHONY ASQUITH and members of the "Pygmalion" unit, at the Royal Photographic Society, 35 Russell Square, W.C.1., at 7.45 p.m.

December 1st

"Early Films," by arrangement with the British Film Institute.

December 15th

"Trade Union History and Practice," by G. WOODCOCK, B.Sc. (Research Officer, Trades Union Congress).

1939

January 12th

Colour Films.

January 26th

"Some Aspects of Sound Recording," by A. S. ATTKINS, Chief Sound Engineer, Associated British Studios.

February 9th

Debate: "A Good Script is More Important than Good Direction." A member of the Screenwriters' Association and SINCLAIR HILL, O.B.E. (British Association of Film Directors).

February 23rd

"A Study in Direction" (including extracts from his films), by the Hon. ANTHONY ASQUITH, A.C.T. President).

March 9th

"Optical Printing" (lecturer to be announced later).

March 23rd

"Television Outside Broadcasts," by P. H. DORTE (by courtesy of the British Broadcasting Corporation).

April 6th

"Film Production for Trade Union Propaganda," by J. REEVES, Secretary, Workers' Film Association.

SHAKESPEARE, SHAW and the SCREEN

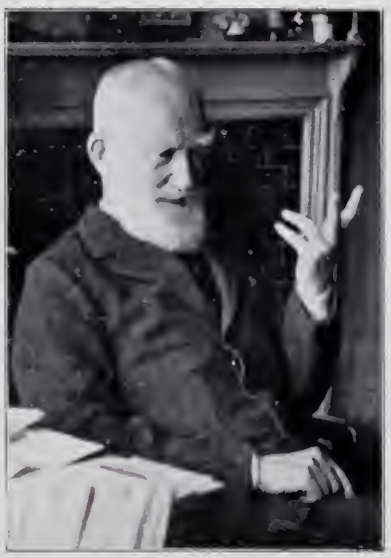
by

(Portrait by Dorothy Wilding)

ANTHONY ASQUITH

I REMEMBER once talking to René Clair about filming Shakespeare and he told me that he was convinced that the only way Shakespeare could be brought to the screen was by the medium of *silent* films. This sounds a paradox but I think there is a great deal of truth in it. It is nearly impossible to translate the poetry of Shakespeare into another language. But it is possible within limits to translate it into another medium and to my mind the best "translation" of any passage in Shakespeare is the orchestral introduction of the 4th act of Verdi's OTELLO which is the perfect equivalent of the scene in the play. It crystallizes, as it were, the overtones of the poetry into music. Now I believe it would be possible for a film director of genius to devise a flow of images which would bear to Shakespeare's verse the same kind of relationship as Verdi's music. The structure of Shakespeare's plays is admirably adapted to screen purposes, it is on the dialogue that the poor sap falls down. As soon as Shakespeare's dialogue is spoken from the screen, one realises that it imperatively demands the stage. For example, when Romeo on hearing of Juliet's death, says "Then I defy you, stars," that is in effect a close-up. The words have in themselves sufficient intensity to bring the audience in imagination face to face with Romeo. In a talking film, all the director can do is to take a close-up of Romeo saying them. This only underlines the effect without enhancing it. It is mere tautology. But in a silent version I can believe that a man of genius could imagine a visual equivalent to Romeo's cry of agony—and I do not mean a long shot of the stars followed by a close-up of Romeo defying them.

Now the problem of filming stage prose is quite different. It is as unnecessary as it would be impertinent to say that Mr. Shaw is the greatest living master of stage prose, but, at least in a play like PYGMALION, his meaning does not come to us surrounded by an aura of poetry which could be translated into the purely visual terms of the silent film. It comes to us sharp, cool and shining as a needle. Only words—and Mr. Shaw's own words—can convey it. Therefore in transferring a play like PYGMALION to the screen it is essential that the words should not be interfered with, and the problem for Mr. Pascal's team (on the technical side almost entirely A.C.T.) was how to provide a visual accompaniment to the dialogue which would give it its fullest effect. It was essential that the movements of the actors and the camera, and the cuts from one shot to another, should all co-operate with the flow of dialogue. I am not now talking of the quality of the acting itself—with such a cast it could be taken for granted—but of the planning of the scenes in relation to the camera in such a way that the rhythm of the picture should give just emphasis to the rhythm of the speech. Where there is a flood of dialogue, obviously perpetual cuts backwards and forwards from one speaker to another would be intolerably jerky. Equally, the photography of a complete stage scene with all the persons included (what a friend of mine has called a "tight five-shot") would be flat and unemphatic. We—



G. B. Shaw

and by "we" I mean the co-operative not the royal "we" —we tried in many cases to plan the scenes so that, without actual cuts, they had the effect of L.S., M.S., C.U., etc.—that is to say, a scene might start as a L.S. with several actors, and end as a single-head C.U. or vice versa, the distance of the artists from the camera at any given moment being determined by the emphasis which their lines required.

There are, as I need hardly say, two kinds of visual rhythm in films, the rhythm of the movement of people or objects within the limits of a single shot, and the rhythmical relation of shot to shot. We tried to use both these types. For example, when Higgins decides to take on the bet to turn the flower-girl into a duchess, he strides about the room dynamically and the camera follows his movements with the minimum of cuts. Directly the matter is settled to his satisfaction he sits down and there follows a brisk argument between him and his housekeeper, with the girl and Pickering intervening. Here we used the other kind of movement—quick staccato inter-cutting of individual C.U.'s, with the occasional added emphasis of people moving or turning into shot. I do not pretend that this was all worked out in theory beforehand. It was, of course, the result of trial and error and most scenes were covered in a number of ways, but we always had in mind the point that the dialogue must not be interfered with by any visual effect, however ingenious, and that at the same time the eye should not be merely a sleeping partner to the ear. I am quite aware that there is nothing new in all this but first hand experience is I hope of some interest even if it only confirms what has been known before.

I hope it will not be considered out of place if I end by paying tribute—and I know it is a tribute in which Mr. Pascal and Mr. Leslie Howard would heartily join—to the technicians who worked on *Pygmalion*. There was not one who did not contribute something vital, and if the film has any merits these merits are entirely due to the work of the unit as a whole.

* * *

A.C.T. LIBRARY

The following publications are amongst the recent additions to the A.C.T. Library and may be borrowed by members:—

"My Wife's the Least Of It" (William Gerhardi)
"A Practical Guide to Amateur Photography" (Marcel Natkin).
"We Make the Movies" (Edited by Nancy Naumberg).
"A Guide to Employment for Boys and Girls in Greater London" (Board of Education).
"Minitography and Cinetography" (City Sale and Exchange).
"Darkness in the Land" (Robert Stevenson).
"June in Skye" (Elizabeth Coxhead).
"I Should Have Stayed Home" (Horace McCoy).
"Films in the Making" (Robb Lawson).
"Trades Union Congress Report, 1938" (Trades Union Congress).
"Motion Picture Sound Recording" (Academy of Motion Picture Arts and Sciences).
"Academy Players Directory, 1938" (Academy of Motion Picture Arts and Sciences).
"The Captain's Chair" (Robert Flaherty).
"Charles Laughton And I" (Elsa Lanchester).
"Optical Aids" (Board of Education).

(*Continued at foot of next column*)

ROYAL PHOTOGRAPHIC SOCIETY'S EIGHTY-THIRD ANNUAL EXHIBITION

The Royal Photographic Society's Eighty-third Annual Exhibition was, as usual, admirably arranged and well worth several visits. This exhibition, which should not be confused with the Exhibition of Kinematography, is the last to be held at the present premises, as by this time next year the Society will have moved to Kensington.

On the ground floor, the Library was given over to Messrs. Kodak's, who had installed a projection theatre for the showing of 16 mm. colour films and amongst other exhibits showed a device, the Argus Microfilm Reader, for the projection of 35 mm. film on to a ground glass screen which might well have studio applications. The Council Room was given over to Pictorial and Colour prints; the Studio to Colour Transparencies and Lantern Slides, and the second floor to Nature Studies, Stereoscopics and Scientific Prints.

The trade was well represented and included, amongst others, exhibits and displays by Messrs. Agfa, Zeiss, Kodak, Ilford, Gevaert, Ensign, Metropolitan-Vickers, Dufay-Chromex, Ross and Leitz. It was, however, disappointing to note the shyness of studio still cameramen, who were conspicuous by their absence. It seems very odd, to say the least, that at the annual exhibition of the foremost photographic society of the world, studio photographers do not appear to consider it worth while to exhibit their prints.

One of the most interesting features of the show was the photography of smell, which was explained in the catalogue as follows:—

> *"The emission of an odour involves volatilisation of material. If an odoriferous material is enclosed in a cell a few millimetres above a clear mercury surface, it is possible to collect on the surface of the mercury a monomolecular layer of the volatilising or odoriferous substance. If the mercury surface initially is covered with talc powder, the gradual formation of the monomolecules layer may be observed as the talc is gradually pushed away from the point immediately below the specimen of material. The photographs illustrate observations of this sort on the emanations from camphor and the lily. From observations of the layers formed, the actual weight of collected emanation may be calculated."*

Other scientific applications were most diverse in character, and illustrated the increased use of photography in industry and the sciences.

Altogether the Exhibition and its associated lectures were most successful, and those concerned are to be congratulated on maintaining the high standard of previous years. T. S. LYNDON-HAYNES.

A.C.T. LIBRARY

(*Continued from preceding column*)

The following additions to the Reading Room have been received and may be read in the office:—

American (Daily)
"The Hollywood Reporter."
French (Monthly)
"Le Travailleur Du Film."
Indian (Monthly)
"Moving Picture Monthly."
"The Motion Picture Magazine."
German (Bi-Monthly)
"Filmtechnik."

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FROM SLIDE TO SCREEN

"March of the Movies," "Flashbacks" and the programme from the Preservation Section of the British Film Institute, all recently shown in London, claim to give a history of cinematography. We present the comments of three of our representatives who saw them.

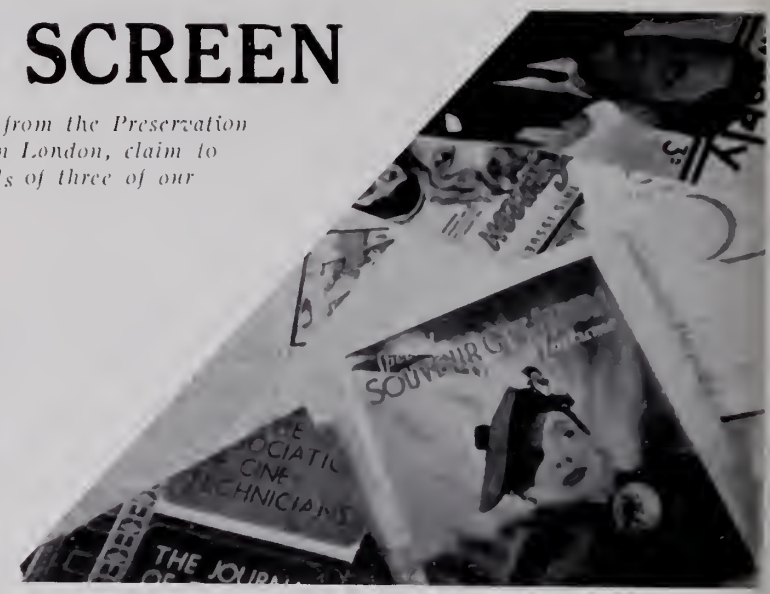
INTERESTING AS CURIOSITIES

"MARCH of the Movies" and "Flashbacks" are both mistitled. The former is a march mainly of publicity stills, and a somewhat alcoholic march at that, going backwards and forwards, hither and yon, without much regard to time and place. In the latter C. B. Cochran had a very queer idea of how long a "flash" may be, and added to his sins by stopping short just where film technique as such was beginning to be interesting.

In effect "Flashbacks," which is silent, calls for less criticism than its partner in that you cannot accuse a thing of failing where it does not try to succeed. It is simply a collection of bits of old films, and even some complete old single-reelers strung together to induce a vein of pleasant reminiscence and remind us of the type of drama that thrilled us or the comedy that made us laugh twenty or thirty years ago. If we were thrilled or if we laughed we must have been very easily pleased indeed; though I cannot help reflecting on the attitude of a youngster of eleven or twelve who sat next to me during the show and was in paroxysms of laughter during the running of an early Charlie Chaplin. Obviously his reaction was one of primary amusement inspired directly by the film, and not, as was ours, a secondary reaction in which we laughed at ourselves for having laughed twenty years ago as that boy did to-day.

What was interesting in the technical sense was to see the conscious growth of the film as a separate form of story-telling, and I greatly regret that the show stopped when the individuality of film technique was just overcoming the handicap of being considered a crude novelty. I think it would improve enormously and be something more than a few torn and unrelated pages of film history if the compilers had brought the story on another ten years to the end of the silent era, when photography, cutting as a real visual art, and the type of acting that was done mainly by facial expression were at their zenith. It would have given a more balanced perspective to what, as it stands, tends to be a bit boring at times, and where, owing to the extreme length of the flashes, a Mary Pickford film of 1913, say, is forced to be entertaining on its own because we cannot rely for nearly two hours on entertainment derived purely from reminiscence.

"March of the Movies" gets the harder kick because it tried and did fail. First of all, it had one of those American-style facetious commentaries which was extremely irritating and most scandalously used at times (as, for example, over the excerpts from Dante's Inferno) when silence would have been more than welcome. It would have been a blessed relief.



Frame from "March of the Movies." Note "A.C.T. Journal" in bottom left-hand corner.

In that it carries the story on to 1938 I should look to a film of this sort to be in itself an example of all the excellencies of modern technical development, instead of which it appeared to have been put together by someone who stopped learning at the same point as Cochran's silent flashbacks stopped. Dissolves and wipes were non-existent, as far as I remember, and fades were just stupid. Continuity shots of strips of blank film and a swinging pendulum kept coming and going without any other reason than that the producer needed something to fill up the action while the commentator went on with his silly speech. Direct sound shots were not even in sync. The time continuity was also extremely faulty and the order of scenes seldom took a simple straight line from event to event.

My greatest sense of irritation with this film came in the last reel when, after a description of the passing of the 1927 Films Act and fulsome eulogies of the foresight of John Maxwell it proceeded to state that owing to the question of copyright "we cannot show you anything from any of the great American films of that period." Well, if they can't, why refer to it? I should have been happy, indeed more than happy, to find a British film being shown to the British public in which the producer stated that he had some little admiration for the many British film technicians who had made his own effort possible. It only adds to the inferiority complex of the native product for a producer to apologise from the screen itself that he cannot show you anything but British films.

Come to think of it, this film, which was mainly drawn from B.I.P. sources and mostly the "Royal Cavalcade" at that, was so poorly done that it didn't make even B.I.P. look too hot. Why take as an excerpt from "Blackmail" a bit that only mentions the word of the title when everyone remembers the film for its justly renowned "knife" sequence? Why not show us something of Kanturek's lovely photography in "Blossom Time," Friese-Greene's exteriors on "Bill the Conqueror," Jarvis's well-timed cutting on "Black Limelight," or the multiple track recording of "Invitation to the Waltz?"

They have plenty to be proud of and nothing to justify the producer making public apologies. And that's only one studio. Denham, Pinewood, Gainsborough, Nettlefold, Sound City—they all have their quota of good things to add. But no, we must make some remark about America or the salesman won't be able to get it over to the exhibitor.

Taking them by and large there was a certain antiquarian interest in both films. It is flattering to oneself as a technician to watch the growth of our "art" and industry, to see the soot-and-whitewash develop into the gracefully graded lighting of to-day, to see the camera become more flexible, acting less mannered, cutting more fluent and better-timed,and direction less stagey. (What they don't reveal is the doubt that must lurk in the average man's mind as to whether the stories themselves have become more intelligent). As curiosities they are interesting, but as films themselves how much better they might have been. J.N.B.

LOP-SIDED SCREEN HISTORY

ONE would think after seeing "March of the Movies" and "Flashbacks" that the film industry had dispensed with technicians after Friese-Greene, Paul and Méliès. These films are like most history books —concerned with the kings and queens but largely unaware of the existence of their subjects. "March of the Movies" shows us John Maxwell's photograph—all very nice—but nothing of the large army of people who make his company's twenty-per-cent dividends possible. We are told of the first quota act (although the producer trips up when he tries to kid us that his House of Commons scene concerns quota legislation when we actually saw the same scene in "Royal Cavalcade" representing Sir Edward Grey's speech at the outbreak of war) but the second Act is never mentioned. We are told of the growth of the film industry through quota, but not of the lack of production, slump, unemployment and hardships immediately prior to and since the second Act. A few shots of two thousand film workers mass-lobbying at the House of Commons early this year would have given a far better perspective of the industry.

The arrest of Miss Sylvia Pankhurst, from a Pathe Newsreel of 1913. (By courtesy of the British Film Institute)

My criticism of these shows concerns more their subtitles than their contents. "March of the Movies" and "Flashbacks" were interestingv within the limits of my colleague's criticisms. But they were certainly not "A Screen Outline of Film History" nor "The Evolution of the Movies." When a new building is erected credit is at least given to the architect and by most concerns to the builders as well. In these cases we stop at the men who cut the first sods. My criticism is that the other spade workers should have been mentioned as well. Here's hoping for a proper screen history which rightly commences by recording that Friesne-Greene died in poverty—but continues to tell a little of his successors who are to-day **living** in poverty; who are unemployed because of the short-sightedness of the Government's legislation and the incompetence of producers who have lost so many millions that they can't get any more; persons whose technical skill is rotting away through idleness but when given the opportunity produce first-class films; persons who are made the pawns of British-American trade; in other words films of the people who make films. That would be film history, and it would not be quite so "fascinating, satisfying or amusing" as claimed for one of the two current releases. G.H.E.

C. B. Cochran

B.F.I. PROGRAMME SCORES

A PERHAPS more academic but certainly far more complete programme illustrating the history of films was given by the British Film Institute on Sunday, 16th October, all the extracts coming from their Preservation Section. Particularly well done was the study of the early development of the genius of Chaplin, by extracts from ten of his films, ranging from the Essanay one-reelers to the later two-reelers such as "The Tramp."

(*Continued on page* 129)

TOO HOT!

A Criticism of the new M.G.M. film

"Too Hot to Handle"

THIS film of American newsreel men featuring Clark Gable and Myrna Loy might have been a newsreel epic. The press critics have described the film as one you should leave your brains at home before seeing and as a film with an unconvincing plot with expert treatment. I say it's first-class entertainment, full of action, sizzling with thrills, and not so fantastic as may appear on first sight to the cine-technician.

The screen play is by Laurence Stallings, Editor of Fox Movietonews, and John Lee Mahin. This film may lead the public to believe that newsreel cameramen spend their time pinching other people's film and fighting rivals for the heart of some blonde or brunette damsel. Those who were engaged for a number of years in the British newsreel war know that it was for their Company's prestige that they engaged in some of the baser tricks. The Grand Nationals, the Cup Finals (where at Stamford Bridge the first balloon barrage was used), the Test Matches, where the air-gun marksmen removed the balloons by deflating them, and other exclusive assignments where the battles between pirates and exclusive right-holders took place, were even more thrilling than scenes shown in this American film. One day creeping into some well protected enclosure in disguise, the next watching and protecting his firm's interests in the attempted holding of exclusive rights, was the newsreeler's everyday vocation. Pirating for his reel necessitated the cameraman being both quick and hefty, and the fight for the tower at Aintree would make a film as thrilling as anything in "Too Hot to Handle," with the bursting fireworks, the tottering 80-foot high steel tower, and the gang fight beneath. Anyhow, as the exchange of lavender prints is the order of today I'm afraid newsreel competitions have ceased.

The China War sequences in this film will recall many a fruitless wait when newsreel units have at last packed up and at the last moment somebody has shot out with an Eyemo and procured the picture. And how many times has the lid of an Eyemo or Devry fallen off and ruined an important picture scramble?

Inaccuracies there are in this film, as when Clark Gable climbs out on the wing of his monoplane to take a picture of the pilot of his plane, although this has been done on a biplane where people can hang on to the cross struts. Anyhow, the back projection shots in this section of the film, where the cameraman is filming the burning munition ship, are excellent, although to have flown as near to the ship as shown would have courted disaster by the aeroplane being blown to pieces.

When the hero and his lady friend are commentating they are shown with their backs to the screen, but this would be possible if they used a mirror above the microphone to reflect the shown image, which I believe is done in some newsreel recording theatres. The Eyemo used by Clark Gable only has a 2-inch lens, compared with the batteries of lenses used by the more up-to-date newsreels. In the jungle scene, in which M.G.M. appear to get Amazon Indians rather mixed up with African natives, and to which the cameraman and his sound engineer have travelled by small canoe, our hero at night puts on a full film show with sound to scare the natives. He is using a portable 35 mm. projector. Of course electric current would be the snag here, although it would be possible to put on such a show using a small bicycle propelled generator for the current.

(*Continued on page* 119)

FROM SLIDE TO SOUND

(*Continued from page 127*)

But where this programme really scored over both "Flashbacks" and "March of the Movies" was in its attempt to give an idea of the post-war development of the film up to and including the coming of sound. All the films shown for this period were British and although it might be argued that a really exhaustive survey would necessarily have to include American examples, it is a gratification to the present British technician to see how well English examples do present the history of that period.

The films in this section were:— the first reel of "Kipps," a 1920 Stoll version of the Wells story, in which George K. Arthur had his first big part; the first reel of "The Man Without Desire" made by Adrian Brunel for Gainsborough in 1922 and the first British film to achieve a run at the Tivoli, then London's premier cinema; the first reel of "A Cottage on Dartmoor," the work of our President, Anthony Asquith, and distinguished by its pictorial sense and ability to use long shots dramatically; the first reel of "The Lodger," a 1926 Hitchcock production, a little long-winded to our modern eyes in its building of suspense; and finally the first reel and the "knife" episode of "Blackmail" the first British talking film, made by Alfred Hitchcock.

In the A.C.T. winter programme there will be given a similar programme, by courtesy of the Film Institute, which should attract a really good audience of technicians anxious to see traced the history of the craft which the older of them helped to build.

S.H.C.

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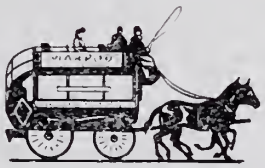

1896

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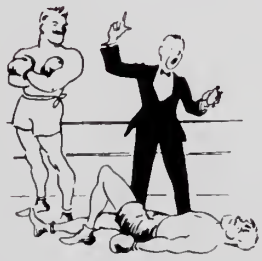
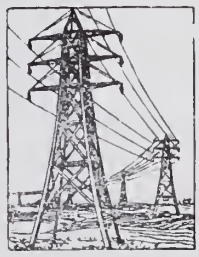
1938

ALL SUBJECTS AVAILABLE

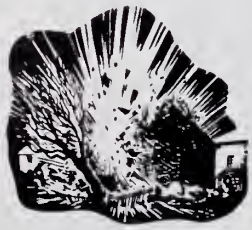


SPORT

TRAVEL—SCENICS



INDUSTRIAL



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Cinema Log

by KENNETH GORDON

"The Drum" Causes Small War in India

On its release at two cinemas in Bombay, "The Drum," London Film epic featuring Sabu, has caused 83 persons to be arrested during the peaceful picketing of The Excelsior and New Empire theatres when Indian protests were made. According to "filmindia," the Commissioner of Police, the deputy Commissioner, two Inspectors, six sub-Inspectors, twelve British sergeants and three hundred constables armed with lathies were needed to protect the patrons! This seems better than any publicity stunt a Leicester Square premiere has ever seen.

"The Drum" ran fourteen days with seventy showings and thousands saw the film. Many protests have been made to the Indian National Congress for a complete ban on its exhibition in India, and as we go to press news reaches us that the Government of Madras have banned the picture.

Stating that Korda has libelled India, and that "The Drum" is a mischievous picture, "filmindia" has raised a storm of protests, leading to processions and huge meetings of all the communities in Bombay.

In the midst of these troubles the arrival in India of Mr. John Corfield, the Managing Director of British National Films, receives very pleasing comment in the Indian papers. This production company are about to produce in India a picture called "Daughter of India" and Mr. John Corfield is at present reconnoitring Indian locations for the unit that will arrive early in January. The industry in Bombay declares it is prepared to extend its sympathy and co-operation to the British unit on its arrival, but gives a warning that native susceptibilities must be considered in all pictures that are made there.

An All-round 16 mm. Sound Recorder

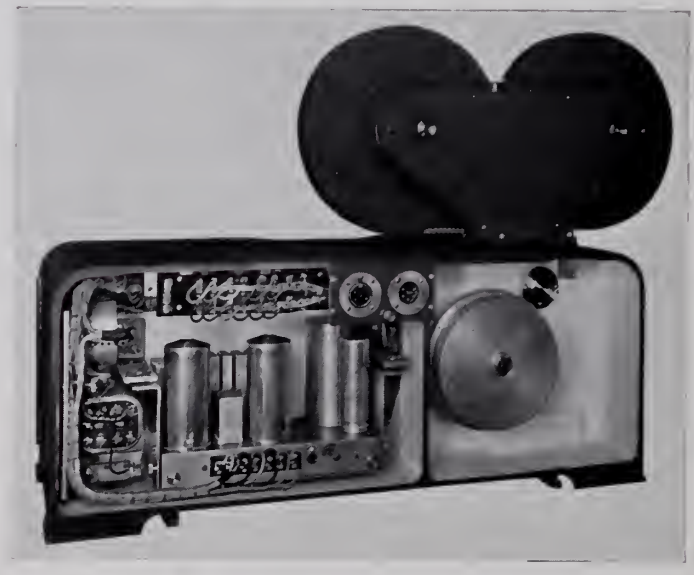
A 16 mm. direct sound on film recorder has been introduced by Electrical Research products in collaboration with the Bell Telephone Laboratories.

Optical reduction printing methods frequently result in a marked loss in sound quality, and this new recorder will be a great boom to those engaged exclusively in the 16 mm. field.

This recorder has two applications, direct recordings made independently, or by electrically interlocking the machine with a 35 mm. recorder both sizes of negative sound track may be made. It can also be used to re-record from existing 35 mm. Re-recording can be made directly from a positive print or from a negative sound track by the use of the negative play back. The apparatus permits the immediate reproduction of neg. variable density sound tracks and offers all the oral advantages that would be given by a device capable of permitting one to view a photograhic negative as a finished positive, if such a device were available.

Flutter is held to a negligible value in film recorded by this machine. Mechanical stabilization is obtained by locking the film-driven scanning drum to an oil-damped flywheel through a common shaft. The flywheel assembly operates on the Rowland principle and consists of a light, oil-filled, driven cylinder enclosing a heavy free floating inner wheel. Acceleration between these two close fitting members is suppressed by the viscous action of the oil. The motor may be of either of the interlocked or synchronous type. These operate on a tail shaft speed of 1,200 r.p.m. Both sound and the holdback sprockets are driven from this latter shaft through worm gears. Positive take-up magazine action is by silent chain drive.

A variable intensity, variable density modulation unit eliminates the form of sound distortion known as the "walking" effect, inherent in ordinary modulators. 16 mm. film travels at approximately one third the speed of 35 mm. The new recorder utilises an image height of only .0004 inches. The modulator is capable of recording frequencies of 7,000 cycles per second. Equal performance in 35 mm. machines would necessitate extending their present upper range to 17,500 cycles. Modulating is by direct headset or loudspeaker.



Western Electric new 16 mm. recorder with rear cover removed.

Teaching Film Appreciation

Here is a grand idea from America to encourage photoplay appreciation. They publish, under the recommendation of the Motion Picture Committee of the Department of Secondary Education, a series of guides to the appreciation of films. The two to hand are "Snow White and the Seven Dwarfs" and "Romeo and Juliet." Well illustrated with stills from the films, these guides give plenty of material for school teachers to give lessons on the films. They are published by Educational and Recreational Guides Inc.

The Metropolitan Motion Picture Council is another organisation devoted to giving information about the cinema, showing pictures of various phases of American history, holding exhibitions of photography, arranging

weekly broadcasts in which leading authorities on films can be heard. Free lectures and discussions are also arranged to encourage the wider use of films.

Crisis

Many dangers have passed in the last few weeks amongst which the settlement of the law suit between Associated British Picture Corporation and the Ostrer brothers out of court has been a great relief to the industry. The vultures who batten on every discordant note in film-land have been driven hungry from their prey.

The war scare has allowed those super patriots whose names cannot be found on the roll of any fighting unit in the last war, to loudly shout patriotic slogans and give a display of mock heroics while doing nothing of practical use to their country. One of the results of their misplaced zeal is the threat of censorship for newsreels. The mixing of too much one-sided party politics with current events has not been popular in our houses of entertainment. To those of us who left the industry in 1914 in fulfilment of our military obligations, there still remains the bitter memory for those who returned of finding that the production industry in England had ceased to exist, and our screens were in the grip of foreign domination. The few production units that still existed were without equipment of any kind. This should never be allowed to occur again. Entertainment is essential to a nation to maintain its equilibrium during the disaster of war.

As most of our studios are near to aerodromes or other places of strategic importance the industry should at once prepare a scheme for a co-operative studio in a safe location, and details should be immediately worked out for the rapid collection and evacuation of the necessary technical equipment to these emergency studios in case of the outbreak of hostilities.

Technicians and actors other than those engaged in works of national or military importance could be assembled under the auspices of their various Trade Unions at the suggested location, where they could be billeted as other refugees will be from the congested areas.

It is up to the British film industry to immediately prepare concrete schemes so that this "shadow" studio scheme could be ready for any emergency, and the nation would be assured that British films would still find their place on our screens. And in the peace that must follow, if civilisation still existed after such a calamity, the nucleus of our industry would still exist for its rapid rebuilding.

Until this scheme is in operation the continual training of studio and laboratory personnel in air-raid precaution duties and the protection of the existing plants should be the duty of the industry's executives. Discipline, drilled knowledge of fire-fighting and first-aid, take a considerable period of training, and it is only those so trained who can coolly carry out their duties in the face of emergency and danger.

I Get a Shock

When discussing with that well known stage villain Tod Slaughter a short picture I have recently made with him, he spoke of its popularity when viewed by him at a West End cinema. He said: "Believe me, Kennneth, after its showing the people next to me turned round and said 'I know you're Tod Slaughter, just seen you on the pictures'. They said they recognised my voice!" I've ordered a smaller size in hats—maybe photography's not so hot. One up for my sound colleague, George Newberry.

Film Industry's Professional Footballer

Following his world tour with the amateur side, Islington Corinthians, J. W. Miller, the well-known sound technician, signed as professional for Fulham, following the film slump.

J. W. Miller has been engaged on the sound side for a number of years, having been with B.I.P., A.T.P., and Universal Pictures.

A.C.T., of whom he was an enthusiastic member, wish him much goal scoring in his new profession.

LAB SOCIAL ACTIVITIES

The A.C.T. Laboratory Social Club has organised a Dance and Cabaret to be held at the Paramount Dance Hall, Tottenham Court Road, on Saturday, Nov. 26th. Tickets 2s. each, including refreshments. The presence of all A.C.T. members and friends, including those from the studios, will be welcomed by the Laboratory Section.

The weekly Football Competitions organised by the Lab. Social Club are meeting with great success. £6 in prizes is being distributed each week and a tidy balance has remained to the Lab. Social funds.

Other activities are under consideration by our Laboratory Section and suggestions will be welcomed.

Our Portrait Gallery, Edgar Thorne, A.C.T. Vice-President

FORRESTER TALKS ON HIS AMERICAN TRIP

FRESH from his trip to Hollywood and New York, the well known cinema equipment expert, Donald Forrester, had many interesting things to tell *The Cine-Technician* about the American film industry. One of the most interesting developments he noticed in New York was in the 16 mm. field, both in education and advertising. Harvard University, which has used 35 mm. films for a number of years, has now been re-equipped with a number of 16 mm. sound projectors. Exchanges have great quantities of both educational and entertainment subjects in their libraries, and there are a number of plants devoted to 16 mm. processing and the production of educational subjects. The cost of a first-class school sound projector is about £90. Most of the large American business houses use sub-standard films for both advertising and staff demonstration purposes. The film used by one of the New York houses to demonstrate their 16 mm. projector was a film of Jack Hylton made at Twickenham—a nice tribute to British technicians.

In answer to the query, what struck him most on his visit to the Coast, Mr. Forrester said "Forest Lawns." This is the Hollywood cemetery, and he tells me it is the most beautiful in the world.

Recalling him from his dream of this salubrious burying place, we discussed further the motion picture industry, starting with equipment. "The development of this," he said, "has come entirely from the studios." When the American technician comes up against a problem he submits it to the equipment firms and the piece of equipment is constructed as the result of the co-operation of the studio technicians and the engineers *and plenty of publicised credit is given to the creators of the idea.* The money problem is best illustrated by the words of Walter Strohm, Chief Engineer to 20th Century Fox. When making application for money for the purchase of new or replacement equipment, his chief (Darryl Zanuck) asks, "How much will it cost? Can I see the results on the screen? If I can, go ahead and buy it . . . And God help you if I can't!"

Forrester noticed in all the Hollywood studios he visited much more co-operation between departments than exists in England. The crews work at about the same speed as here but there is no hesitation if re-takes are necessary. There is an air of efficiency and no passengers are carried. The American technicians take their job very seriously and are not only interested in their own job but possess a thorough knowledge of the whole picture production business.

Our modern studios, declares friend Forrester, are as well equipped as any studio in America, but adds that he saw a number of innovations applied to dubbing and recording which saved considerable time. "The new Mitchell camera, which is totally enclosed in a small blimp, which is part of the camera, struck me as possessing a number of features of help to the camera operator, and the new back projection apparatus incorporates some brilliant ideas." In answer to our request as to what the American public think of British pictures, he declared that both the exhibitors and the public were much impressed by the British pictures seen there, particularly in San Francisco, and there is a definite feeling that they would like to see more. This, of course, depends on the distributor.

Forrester took some British equipment with him, although he considered it was like "taking coals to Newcastle." He was amazed at the interest displayed and the resulting orders. Asked if he had met any of the American cameramen who had worked in England, he said "Yes, and they would all like to get back here to work!" The state of the American industry, to his mind, is worse than it is in England.

To sum up, he found that the high spots of his Hollywood visit were the elaborate and efficient Research Department of M.G.M., the enormous exterior lots, the huge Ice Rink stage at 20th Century Fox, the extremely bad sound reproduction at the Hollywood Bowl, and the new Douglas D.C.4 plane.

Bell & Howell NON-SLIP 35mm. SOUND PRINTER

IN the early part of 1936, the R.C.A. laboratories advocated a printer for 35 mm. sound track, the main feature of which was a departure from the customary film control by means of a precision sprocket.

The design of the printer was based on the principle that two strips of film of different lengths (shrunk negative and unshrunk positive) can be made to travel past a contact point without slippage between the two, provided that they are made to travel between two drums in such manner that the shrunk negative film maintains a uniform speed and forms an arc of constant chord-height while the unshrunk positive, though travelling in close contact through pressure with the negative, is left free to assume a concave or convex curvature, the radius of which will vary according to the differences in length of the two films.

This is possible because of the fact that by forcing the negative film to travel over a drum of a certain predetermined diameter, the film will maintain its mean length, while its convex side is stretched in proportion to the arc that it subtends.

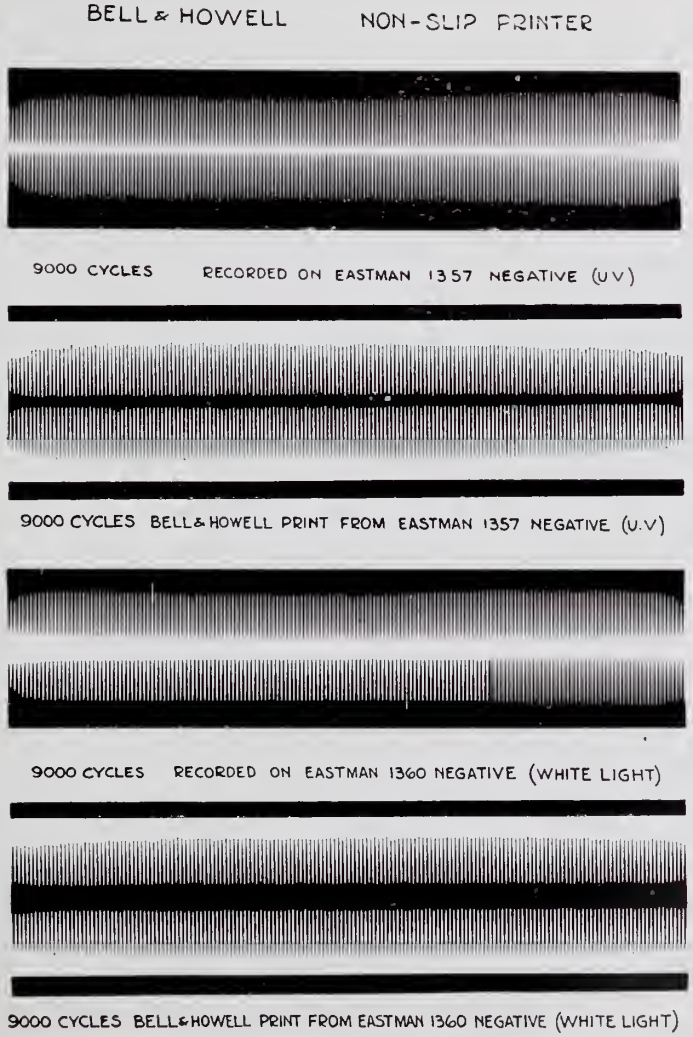


Figure 1

The longer positive film, if held in close contact with the negative, with sufficient pressure to produce traction, will follow a concave, or convex path, the result being that the outer convex surface of the negative is stretched while the surface of the positive automatically assumes a form which will compensate for the differences in length of the two films.

The simple test of running an unshrunk positive film through the non-slip printer in contact with a negative made up of unequally shrunk sections, therefore varying in length, will clearly demonstrate that changes in the size of the feed loop of the positive film will cause a considerable change in the angle at which the film approaches the printing contact point, thus forcing the positive film to make contact with the shorter negative film only along the line of tangency which varies automatically according to the differences in the lengths of the two films. Film shrinkages are thus accommodated within relatively wide margins.

HORIZONTAL OPERATION

The first departure from the conventional design of non-slip printers was to construct the Bell & Howell model to operate horizontally instead of vertically. In this position, the heavy rolls of film are fully supported and will unwind with a minimum of effort and a minimum of friction between the convolutions of the film roll.

Another important factor is that both films are thus kept in such a position with reference to the moving parts of the machine which need lubrication that the danger of oil or other lubricants coming in contact with the film is entirely eliminated.

Equally efficient operation of the printer in either the forward or the reverse direction, which has been made possible by the horizontal construction of the machine, results in a considerable saving of time by eliminating the necessity of re-threading the negative after each print. Besides the time saving feature, the forward and reverse operation introduces a safety factor by reducing the handling of the negative to a minimum.

DIAGRAMMATIC EXPLANATION

As shown in the accompanying photograph (*Fig. 2*), the negative film "A," supported by flanges of 1,200 foot capacity, is led to a sprocket over the rollers "B." The negative sprockets "C" are precision hobbed 32 tooth sprockets. The form and pitch of the teeth are calculated to ensure smooth driving of the film and proper stripping action at the point where the film leaves the teeth. The wrapping of the film around the sprocket and therefore the number of teeth in mesh is controlled by the roller "B" and the film guard "D." From the sprocket, the film is led over the fixed roller "E" and the floating roller "F," both of which are mounted on ball bearings and flanged with spring guides to guide the film positively around the printing drum "G." Neither the negative rollers "F" nor the positive rollers "I" are set in a fixed position.

The switching of the direction of operation of the printer from forward to reverse, or vice versa, is controlled by means of the handle "K," which, by means of a yoke and adjustable stops, also causes the rollers to assume the proper position according to their function, the function being determined by the direction of opera-

tion of the printer. The path of both films and the position of the rollers is clearly shown in the illustration in which the printer is set to operate from right to left.

It is to be noted that the positive roller "I" at the left is not operative, while the roller "I" at the right positively guides the film with sufficient resilient tension to allow it to find its own path, which is dependent upon the differences in length between negative and positive films.

The positive 32 tooth sprockets "L" are, like the negative sprockets, precision hobbed, but of different base diameter (tooth pitch) and different tooth width, with due consideration to the fact that their function is to drive unshrunk or very slightly shrunk positive film "M."

The long flexible loop between printing point and take-up sprocket absorbs any disturbance that may be created at this sprocket, while the operative tension and guide rollers "I" ensure freedom from disturbances which may be created at the feed sprocket.

The drum "G" at the printing point has a 1-in. diameter and is made of hardened stainless steel, while the pressure roller "H" (also of stainless steel) has a diameter of $\frac{5}{8}$-in. These dimensions are calculated to accommodate differences of film lengths as are met in laboratory practice.

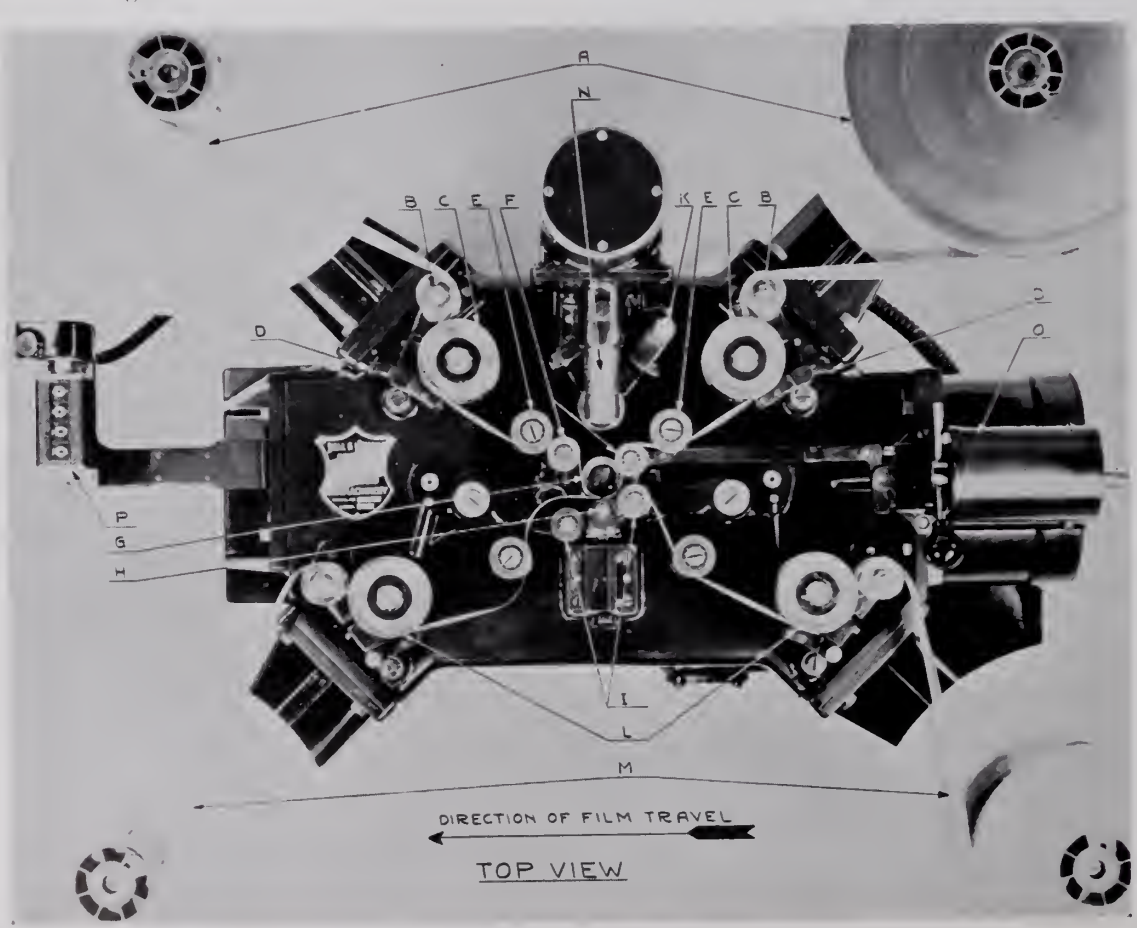
Perfect contact of the two films at the printing point is assured by carefully controlled spring pressure exerted on the roller "H," sufficient to create traction at the printing point without imposing undue stress on the films.

Freedom of action is secured by free application of precision ball bearings.

DRIVING POWER

The driving source of power is a $\frac{1}{8}$ h.p. 220 volt A.C., 3 phase, 60 cycle, ball bearing, squirrel cage induction motor, turning at 1,725 r.p.m., and with heavy duty worm gear reducer to operate the printer at a speed of 75 feet per minute. The speed of 75 feet per minute has been determined as an optimum speed to safeguard both negative and positive film, and to protect against static markings which may occur under some atmospheric conditions. It has also been calculated to correspond with the output of the regular Bell & Howell Model D printers as used for printing the picture area in normal laboratory procedure. This speed can be increased if so desired on special order to have the printer to operate at either 90 or 110 feet per minute. The speed required should be stipulated at the time of placing orders, as the direct drive of the machine will not permit incorporation of variable speeds.

The power delivered by the motor is directly transmitted to the moving parts by a worm gear attachment, which runs in an oil bath, insuring smooth, positive, constant motion—no belts to introduce uneven motion. The hold-back and take-up drive is exceedingly smooth acting and is adjustable by varying the pressure on a system of multiple plate disc clutches. Any possible disturbance which may be created even by the most carefully designed and constructed mechanical drive are eliminated through a mechanical filter stabilizer mounted on sealed ball bearings with brush type friction.



Bell and Howell Sound Non-slip Printer

Figure 2

PRINTING LIGHT SOURCE

The actual printing occurs at the point of contact of the two films through the drum "G" and the pressure roller "H."

The height of the drum "G" is such that the sound track as recorded on the negative is above the drum and therefore open to the action of the printing light which consists, at the printing point, of an optical light slit .005-in. in width.

The printing light slit is produced by an optical system "X" comprising:

(*a*) A 10 volt 7–1.2 ampere vertical filament exciter lamp as light source, with a prefocus base, securing accurate alignment of the filament with the optical system.

(*b*) A short focus condenser which collects the greatest possible amount of light energy.

(*c*) A .080-in. (2 millimetre) thick glass ultra violet (U.V.) filter as standard with provisions made for easy interchange of filters up to a thickness of 5 mm.

(*d*) A mechanical slit .010-in. wide.

(*e*) A 32 mm. fully corrected lens, especially designed to image the mechanical slit at a reduction of 2 to 1, focussing it at the printing point in the form of a luminous slit .005-in. wide.

The exciter lamp operating at approximately 8 volts with the printer running at the speed of 75 feet per minute ensures sufficient exposure time while the low voltage at which the exciter is operated ensures long life and constant brilliance of the light source. The power supply for the exciter lamp is secured from a 12 volt battery as obtainable on the open market. A trickle charger with adjustable charging rate to ensure a constant voltage supply of D.C. current is interlocked with the printing lamp switch to automatically maintain the battery charge.

EXPOSURE CONTROL

Accurate exposure control is secured through visual inspection of a highly responsive ammeter graduated in steps of 1/10 amps. Two rheostats, one for coarse and one for fine settings, are enclosed in the casting holding the ammeter, the whole unit being made an integral part of the printer, as shown in the illustration. (Note that the unit has been removed, for convenience of photographing, to secure the "top view" of the printer).

The convenience of operation of the non-slip printer is enhanced by the ease of threading either positive or negative films, and by the interlocking motor switch "O." with reverse, which does not permit to start the machine running in the wrong direction. All lubricating points are of easy access and a positively driven film counter "P" with four digits is supplied as an integral part of the printer. Two 110 volt pilot lamps, wired in series for 220 volt operation, are installed so that they will not interfere with the operator and permit easy reading of the ammeter and of the timing index card.

The results that are to be secured through the non-slip printer are illustrated by the greatly magnified, attached photographic enlargements of a 9,000 frequencies negative, and corresponding print (*Fig. 1*).

Technical Abstracts

MAINTENANCE OF A DEVELOPER BY CONTINUOUS REPLENISHMENT—R. M. Evans

(*S.M.P.E. Journal, Sept.* 1938)

This paper points out the importance of consistent quality of developing solutions not only from hour to hour but over periods of years, and attempts to reduce the problem of replenishment to a mathmatical equation. The bath discussed is the usual elon-hydroquinone developer, and the factors causing exhaustion are enumerated in detail. It is suggested that there are many advantages to be gained by the addition of routine analytical tests to the photographic tests already in use. The analytical methods of *Lehman* and *Tausch* are outlined.

NEGATIVE-POSITIVE TECHNIQUE WITH THE DUFAYCOLOR PROCESS—T. T. Baker

(*S.M.P.E. Journal, Sept.* 1938)

Report of progress made and difficulties overcome in the technique of making prints from screen-film negatives. The contact printing machine used is described with special reference to the problems involved in choosing a suitable light-source. Residual colour dilution has been counteracted by the choice of suitable developing gammas. The importance of correct emulsion characteristics is also stressed.

THE HYP-O-METER

(*International Photographer, July,* 1938)

This instrument records on a meter the amount of hypo, if any, present in the washing water. It is adjusted first of all to give a zero reading in pure tap-water, and measurements are obtained of the relative resistance of any fluid in which the electrodes are submerged. Energy is derived from two small 3-volt flash-light batteries.

THE PROTIZE PROCESS

(*International Photographer, July,* 1938)

Advisability of the treatment of "green" films in order to prevent handling and projection scratches is discussed. A new fluid for toughening and lubricating the film is announced and its benefits are briefly enumerated.

APPLICATION OF NON-LINEAR VOLUME CHARACTERISTICS TO DIALOGUE RECORDING—

J. O. Aalberg and J. G. Stewart.

(*S.M.P.E. Journal, Sept.* 1938)

R.K.O. Studios have found a peculiar effect in area recording which is not apparent in density recording—the effect of sharp volume increases in speech—increases of recorded level greater than the increase in level of the spoken word. It was therefore suggested that an electrical compressor circuit be used so that these momentary peaks could be controlled and the highest possible intelligibility obtained without knob twisting. A non-linear compressor was used and the practical results of its use are mentioned. The discussion following the article is very interesting.

PERMANENT MAGNET LIGHT VALVE

(*S.M.P.E. Journal, Sept.* 1938)

In the Patents and Inventions Section an interesting account is given of the construction of a permanent magnet four-ribbon light valve for portable push-pull recording.

George H. Elvin, A.C.T.'s Delegate, Reports on the 70th Trades Union Congress

IN reporting that international affairs have taken a prominent place in the year's work, the seventieth annual report of the Trades Union Congress states that "a Movement such as ours, in dealing primarily with the industrial life of our members, cannot be unmindful of the threat to human life, material conditions and civilisation itself, occasioned by the growth of intense nationalism, and the consequent threat to democratic institutions of which our Movement is an outstanding example."

Bearing this in mind, and remembering the tenseness of the international situation during the early days of September, it is apparent that a large portion of delegates' time at the Trades Union Congress was devoted to international affairs. It is not my purpose in this article to deal with the decisions of Congress on such matters. They are well known to members through the lay press and the circular which the A.C.T. General Council issued to members at the end of September.

The influence which five million trade unionists through the T.U.C. can exert on any matter of national and international importance is great, and no one will gainsay that that influence is being used in these difficult days to try and ensure that sanity and peace prevail. I personally am confident that the Blackpool decisions were the right ones, and that they put forward in no uncertain terms the only policy to ensure a real peace in Europe. And that is something we all want.

And now to turn to other matters. It is impossible to give in any article of this nature an adequate report of a year's work, followed by a week's Congress of the Trade Union Movement. That is printed and runs into over 500 pages. A copy may be borrowed from the A.C.T. Library. I merely propose to outline some of the more important decisions which closely affect film technicians.

FAIR WAGES AND THE FILMS ACT

Firstly, there is our own resolution, moved by myself, seconded by Mr. T. O'Brien of the N.A.T.K.E., and *carried unanimously*. It read:—

> *"This Congress places on record its appreciation of the co-operation of the General Council with the unions in the film industry to improve the legislation affecting film production, and particularly the incorporation of a Fair Wages Clause in the Cinematograph Films Act, 1938.*
>
> *It regrets, however, the attempts that have been made by certain producers to evade the terms of the Act, and instructs the General Council, in conjunction with the unions in the film industry, to take such action as may be deemed necessary to ensure compliance with the Act and to expedite the negotiation of collective agreements for all workers in the film industry."*

Unfortunately owing to an overcrowded agenda it was not possible for Mr. O'Brien and myself to develop the points we hoped to make (a three-minutes time limit for speeches was imposed by the time we came to mount the rostrum). A statement was, therefore, issued immediately after the Conference, which was based on the notes we had prepared.

This statement clearly laid down the A.C.T. interpretation of the Fair Wages Clause, and then proceeded to give detailed evidence of the alleged breaches of the Films Act. It quoted, for example, the hours worked on one particular production, which were up to 70 hours in the worst week. These times did not include travelling to and from the studio, packing away gear at the end of the day, the viewing of rushes, and meal breaks. The hours cited meant that technicians were doing nearly two weeks' work in every week, without any additional payment. As the majority of the staff were dismissed at the end of the production, the existing hours resulted in their employment being terminated three weeks earlier than if normal hours had been observed. Examples were given of the salaries paid and the percentage they were below A.C.T's. fair wage rate. Cases quoted were 8%, 17%, 25%, 33% and 62% below the rates.

A case was quoted of an operative cameraman being asked to do lighting on his grossly inadequate salary of £6 per week. Another case quoted was of technicians on a production being asked to take £1 a week cut. This included persons earning only £2 10s. 0d. per week.

On the documentary side, the position is equally unsatisfactory, and specific details were given including one case of a sound crew whose combined salaries were only £4 per week.

The unanimous passing of the motion tabled at the Trades Union Congress will ensure the full support of the whole trade union movement for any action which may be necessary to ensure compliance with the Fair Wages Clause of the Cinematograph Films Act, 1938, and any appropriate action necessary to expedite the negotiation of collective agreements for all workers in the film industry.

HOURS IN CINEMA INDUSTRY

The Electrical Trades Union moved a resolution (which was carried) demanding that no motion picture projectionists shall be employed for more than eight hours per day or forty-eight hours per week, and calling upon the Government to give legislative effect to this end. In moving the resolution, Mr. Gregory said the position was one in which the factor of safety had to be taken into account. "Safety and hours," he said, "should go together to strengthen our demand for the Government to bring in legislation for a 48-hour week."

FREEDOM OF ASSOCIATION

An important resolution, moved by the Guild of Insurance Officials, **deplored the fact that many employees are denied rights and benefits of collective bargaining and urged all affiliated unions to give every assistance to those organisations which have not yet achieved recognition, and called upon the General Council to do all in its power, both industrially and politically, to obtain the full Trade Union rights for every worker in industry.**

INCREASED INCOME LIMIT

A.C.T. has always associated itself with the agitation to increase the income limit for State Unemployment Insurance. The policy of Congress was reaffirmed in a

resolution moved by the National Union of Clerks regretting the inaction of the Government regarding the introduction of the necessary legislation to increase the Income Limit for non-manual workers for inclusion in State Unemployment Insurance from £250 to £500 per annum. The resolution urged the Government at least to act upon the recommendation of its own Committee, the Unemployment Insurance Statutory Committee.

FOREIGN REFUGEES

The Medical Practioners' Union opposed the recommendation of the General Council that a yearly maximum of 50 doctors and 100 dentists be allowed to enter this country from foreign countries during the next four years. It was stated that the Union had not been consulted by the T.U.C. in coming to this decision and it was claimed that if the Trades Union Congress was to be consistent they should allow a proportionate number to come into the country of skilled artisans and workers in engineering and similar trades, instead of picking out just the medical profession. I personally was thankful they had not, but knowing the attitude of the A.C.T., if such a policy was adopted as far as our own industry was concerned, I voted with the movers of the reference back, which although it had a large support was insufficient to defeat the General Council. I am confident that the very able case put up by our medical colleagues, and the support it received, will ensure that the General Council is very careful of such action on future occasions, in the medical profession or any other.

WORKERS' FILM SERVICE

The General Council reported that a Special Joint Committee of the Trades Union Congress, the Labour Party, and the Co-operative Movement, had decided to set up their own distribution and production organisation. During the Congress a demonstration of the type of film which it is proposed will be available through the service was given to delegates. The films had a magnificent reception, and it was particularly pleasing to see the names of leading A.C.T. members in the documentary field on the credit titles. I am confident such a service has a big future, and it is indeed fortunate to have appointed as its secretary Mr. Joseph Reeves, who as educational secretary of the Royal Arsenal Co-operative Society has been a pioneer in making films of this nature—and, of course, making them with A.C.T. technicians. Mr. Reeves is now installed in his new offices on the floor above A.C.T. at 145 Wardour Street.

ELECTIONS

I stood for office for the first time and was nominated for auditor. I was not elected but polled 852,000 votes, which seems very satisfactory for a first attempt. T. O'Brien (N.A.T.E.) polled 843,000 in an unsuccessful effort to oust the President from his seat on the General Council. J. Rowan (E.T.U.) was also unsuccessful in his group.

THE PRESIDENT

I was particularly glad, if I may be pardoned for introducing a personal note, to be the A.C.T. delegate to a Congress presided over by my father, who in serving in that capacity occupied the greatest office which it is possible to attain in the Trade Union Movement. Far be it from me to comment upon his chairmanship, other than to say that I had no difficulty in catching his eye on the only occasion I wished to mount the rostrum! But it is important to note that the National Union of Clerks and Administrative Workers, of which Mr. H. H. Elvin is General Secretary, is a small union of 12,000 members. The Trades Union Congress is always prepared to devote as much time (as we learned over the Films Act campaign) to the smaller unions as to those whose vastness makes us shudder. Because A.C.T. has, comparatively speaking, only a handful of members is no reason why it should not play its full part in the Trade Union Movement. I am confident that our members will make up in service what they lack in numbers. Let us work with our colleagues (in whatever industry they be found) to the benefit of all as we expect and know they will help us in film production. As our President concluded his address "FORWARD AND ONWARD TILL OUR GOAL IS WON."

FILM SOCIETY

The Film Society opens its 14th Season on November 20th. Six performances will be given during the year. Among the films from which a final selection will be made are :—

France

"La Femme du Boulanger" by Marcel Pagnol.
"Entrée des Artistes" by Marc Allegret.
"Le Joueur" (after Dostoievsky) by Gerhard Lamprecht.
"Ignace" (with Fernandel) by Pierre Colombier.
"Clochemerle"
"La Chartreuse de Parme" by Carmine Gallone.
"Werther" by Max Ophuls
"La Bête Humaine" by Jean Renoir
"La Marseillaise" by Jean Renoir
"Le Drame de Shanghai" by Pabst
"Volpone"
"Ultimatum"
"Carrefour"
"Belle Etoile" by Baroncelli

U.S.S.R.

"Lone White Sail" (Soyuzdetfilm)
"Professor Mamlock"
"Alexander Nevski" by Eisenstein
"Rich Bride"
"Childhood of Gorki"

Mexico

"Redes"

Czechoslovakia

"The Inspector General" (after Gogol)

Germany

"Olympiad" by Leni Riefenstahl

The shorter films will include new work from Great Britain, France, Poland, Belgium, Denmark, China, Roumania and Turkey.

As usual there will be special rates of subscription for film technicians; 13/6 for the season of six performances, a reduction of 5/6 on the lowest standard rate.

Membership Forms have been sent to A.C.T. members but further copies may be obtained either from the A.C.T. office, 145 Wardour Street, W.1., or direct from The Film Society, 31 Poland Street, W.1.

It is pleasant to see several members of A.C.T. on the Film Society's Council, including Anthony Asquith, Sidney Cole, Thorold Dickinson, Ivor Montagu and Basil Wright.

Recent Publications

Motion Picture Sound Engineering by the Research Council of the Academy of Motion picture Arts and Sciences. Chapman & Hall. 30/-.

Two years ago the Research Council of the Academy of Motion Picture Arts and Sciences started a course of lectures on the fundamentals of sound recording. The classes were so well attended by sound department employees from all Hollywood studios that it was decided to incorporate these lectures into book form. Several experts from Hollywood studios have contributed to this book, whose five hundred odd pages are excellently printed and produced. It is one of the first really valuable books to be published on Sound Recording.

The first part of the book deals with the technique of recording proper, including what is equally as important, the reproducing system. It is extremely complete and the very latest technical details on push-pull tracks and Hi-range recording are given. Some knowledge of electrical engineering and higher mathmatics is required (the first principles of these are explained in part two). Some idea of the amount of detail and completeness may be gauged by the treatment of phase-distortion. In the earlier days of sound recording, volume and frequency distortions were our main obstacles, and phase distortion was not considered important; but the modern use of equalising and attenuating networks, especially in re-recording, introduces phase distortion which must be understood before such networks can be correctly used. The theory and design of these takes up, perhaps, too much room; though important, it is really the work of the design engineer and the maintenance engineer, though of course, the book does state "in the choice and use of corrective equalisers a re-recorder can only be guided by ear. The nature and amount of correction must be determined by trial."

Every stage of the process of Sound Engineering is described in detail with excellent diagrams and graphs, and each piece of apparatus, from the various types of mikes to the various types of reproducing speakers, is fully discussed. The description of each piece of apparatus is accompanied by characteristic curves and corresponding mathamatical formulae.

The second part of the book deals with theory and design starting with the first principles of electricity and magnetism and ending with valve and amplifier design, involving the higher calculus. This is, of course, an extremely difficult task, and although the formulae are simplified as much as possible, the reader needs a certain knowledge of electrical theory.

To engineers of some experience this book is of invaluable reference. To the young assistant and the unfledged recordist it is a very necessary and extremely valuable text-book. The Academy of Motion Pictnre Arts and Sciences is to be congratulated on having produced an extremely useful piece of work.

G. H. NEWBERRY.

Films in the Making by Robb Lawson. Pitmans. 2/-.

The publicity chief of a film organisation occupies the position of liason officer between the film trade and the general public, and so Mr. Robb Lawson is very well qualified to explain our business to the layman. This he has done in his present short history of the motion picture industry, which, although it may seem to us technicians to err on the side of over-simplification, is, I am sure, exactly what the public wants in a book of this kind.

Beginning with the original problem of "making photographs move," Mr. Lawson traces the history of our branch of the entertainment business down to the present day and Television. He is never content with a bare statement of fact, but by means of quotations from such authorities as the former trade paper "The Optical Magic Lantern Journal," and personal interviews with pioneer showmen, keeps the narrative at a consistently high level of interest as he traces the changes in production and exhibition technique and the opening up of fresh possibilities for the medium through the development of synchronised sound, colour photography, etc. There is no aspect of the industry, including News Reel and Cartoon work, that is not dealt with in this necessarily very brief survey, and with his account of the latest developments in Television he brings us up to 1938.

It is a pity that the book should be afflicted with so many misprints, a particularly glaring example of which is the description of a diagram of a television receiving set as the "Interior of H.M.V. Television Studio," but no doubt this will be put right in subsequent editions of this extremely entertaining little book.

D.B.

The Captain's Chair, by Robert Flaherty. Hodder & Stoughton. 7/6d. net.

Years ago, before Flaherty made any films or wrote any novels, he spent his time exploring North America. He knew, not every inch perhaps but certainly a great part, of the Labrador Peninsula, and the Eskimos and Indians who lived there were his friends. Out of his knowledge of this area and its people came, by one of those happy chances which have such tremendous results, his first film "Nanook of the North," which told the story of the Eskimo's struggle to live, and which established Flaherty as one of the great figures of the cinema.

Out of this knowledge, too, he has given us his first novel "The Captain's Chair." It tells a series of stories of the people who live in Arctic Canada; of Captain Jensen, the Dane, refusing to leave his ship though she lay beached and broken on the coast of Charlton Island; of Omarolluk, the Eskimo guide, taking fantastic journeys across the ice and snow of the Peninsula; of Comock and his family, marooned for ten years on an island far out at sea, facing interminable hunger, while members of the family die, or go mad and have to be killed to save the others; of Nucktie the Owl, who had a trading agreement with God; and of many others. Together the stories give a picture of life in North America which becomes an epic of human persistence. Linking it all together is the story of the trading posts of the Hudson's Bay Company, scattered hundreds of miles apart around the Bay.

Their one contact with civilisation and with each other is the annual visit of the relief ship from England, called by the Eskimos "the greatest canoe in the world." The story of this ship and Captain Grant, its master, binds together into one whole the separate histories of the book.

Flaherty makes no attempt at fine writing; he uses words as objectively as he uses his camera, bringing out

the poetry and drama of his subject without straining for effect, helped by the vital power of his observation. The strength of the book is the strength of a man who tells of things which he has experienced himself, and of people whom he knows intimately.

S.G.H.

"Charles Laughton And I" by Elsa Lanchester. Faber & Faber, 8/6d.

No-one who knows Elsa would expect her to be capable of writing anything dull, and this book has plenty of the acuteness of expression that her talent has always shown.

She is a most interesting person. Fans who see her in films (or more rarely, on the stage) nowadays notice with an astonishment that is always fresh with what ability she plays every part. You do not expect "Mrs." Laughton to be with him on the screen as well as in the home. And when she plays so well that you are forced to admit that she "belongs," why, naturally, it results in a start of surprise. The circle before which she played and earned her reputation before she was "Mrs." was not a large one, but it had no doubts about her, and I think it was right. Had she and Charles never come together, her acting personality might never have adapted itself as one acceptable to the widest audience, but she would certainly have fixed famously in her own genre an ineradicable niche.

Instead, a very different course. The sense of what the "Mrs." business has both won and lost is very prominent in this story. Making a success of marriage and showing that your acting ability is enough to hold your own even in a field and style that is not naturally yours has been hard work, that is obvious, but it has been well done, like this book.

What has such a book to be? Obviously the picture of a reigning film star, semi-autobiographically sponsored, is likely to be neither a ruthless microscope-cum-searchlight revelation of human nature nor a candid picture of How Films *Are* Made behind the screen. A film star is a mask to millions, and if he presented himself before those millions in any other shape than the expected mask, he would no longer be the star. The situation is entirely unaffected by the fact, in this context irrelevant, that he is also an actor of genius. As Elsa observes: "In film making" (she might have added: in books about film people) "it is necessary to strike a happy medium between your own ideals and what the public want, and to set your integrity between these two points—a pretty tough course." And I think she has done it. She has told the tale of the lives of Charles and Mrs., enumerating the facts and yet reconciling them with the masks. Elsa's earthy graphicality of caricature, summing up the pith of a matter in a few strokes—always her forte—comes through better in the narrative parts than in the reflections and descriptions, which are, inevitably I suppose, a bit as the doctor ordered. The thing most to the menage's credit is that even the "narky" reader will find the impression creeping through, that the inevitable stock picture of a film couple as "pleasant" is in this case not unfair.

Photographs excellently chosen and arranged; a marvellous Thurber drawing epitomising all that the book, between its lines, is about; a flattering, though unidentified reference to your excellent reviewer on p. 187; and a sole incautious "foot of clay" peeping through the careful structure, the revelation that Elsa thinks of cats as "it." Fie !

Note for future editions: spell "Laski" "Lasky" on p. 96; Charles played not a policeman but a crook, p. 94. Technician's angle; read the book and get to know the boss and his wife and their quirks. You may one day work for them. IVOR MONTAGU.

NEW BOOKS ON PHOTOGRAPHY

Chapman & Hall announce three new books which will be of particular interest to Still Photographers.

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"THE AMERICAN ANNUAL OF PHOTOGRAPHY 1939" (8s. 6d. paper cover, 12s. 6d. cloth bound) is the 53rd annual volume of the well known Year Book edited by the Editor of "American Photography." In addition to the profuse illustrations there are 23 articles concerned not only with recent advances and new trends in photography but also with matters of an aesthetic nature claimed to help the professional and amateur to obtain even better photographs.

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PIGSWILL'S PENURIOUS PROGRESS

O listen to me, fellow members of mine.
I have heard from reliable sources,
That some have tried hard—or at least dropped a card,
And are tapping the foreign resources.
It isn't for me to make flippant remarks.
No one would permit such a blunder,
But let me quote here the replies that I fear
Might possibly be, as hereunder:—
From Germany now, an answer like this?
(Preceded, of course, by a *Heil!*)
"We've dumped all our best men and only have Yes-men,
It may not fit in with your style."
"In any case, Herr, the films that were made
In the past, and which caused such a flutter,
Have had to be stopped—the business has flopped;
Our motto's now 'Guns and not butter'."
"We wanta make pictures," Italians will say,
"We send Bruno abroad for to learn,
But our principal acta, is making a Pacta,
So all we still do is just yearn."
The answer from Russia: "Dear Comrade, perhaps
If you are exceedingly gifted,
And really quite hot on a good model shot,
Your references we will have sifted."
"And if you can teach us more than we know,
Please come right away, do not pause;

"Please come right away, do not pause"

Our films will be grander—perhaps less propaganda,
In the meantime, Fraternally yours . . . ."
Reply from Japan, rather short I should think;
"We are not making films any more,
In the Land of the Sun, O illustrious one,
We'd much rather be making war."

France would say, "It's undoubtedly true
Our pictures we know how to treat 'em;
The characters live—our technicians give
Of their best: do you think you could beat 'em?"
America now: (this is bound to be good)
"In England we've men by the score,
Doing your work there mind you, so now we can find you
A clapper-boy's job to be sure."

"A clapper-boy's job to be sure"

Forewarned is forearmed, the old adage says;
So now you know what to expect.
But if abroad you adjourn—please take a return,
'Cos there *may* be a Film Boom here *yet*!

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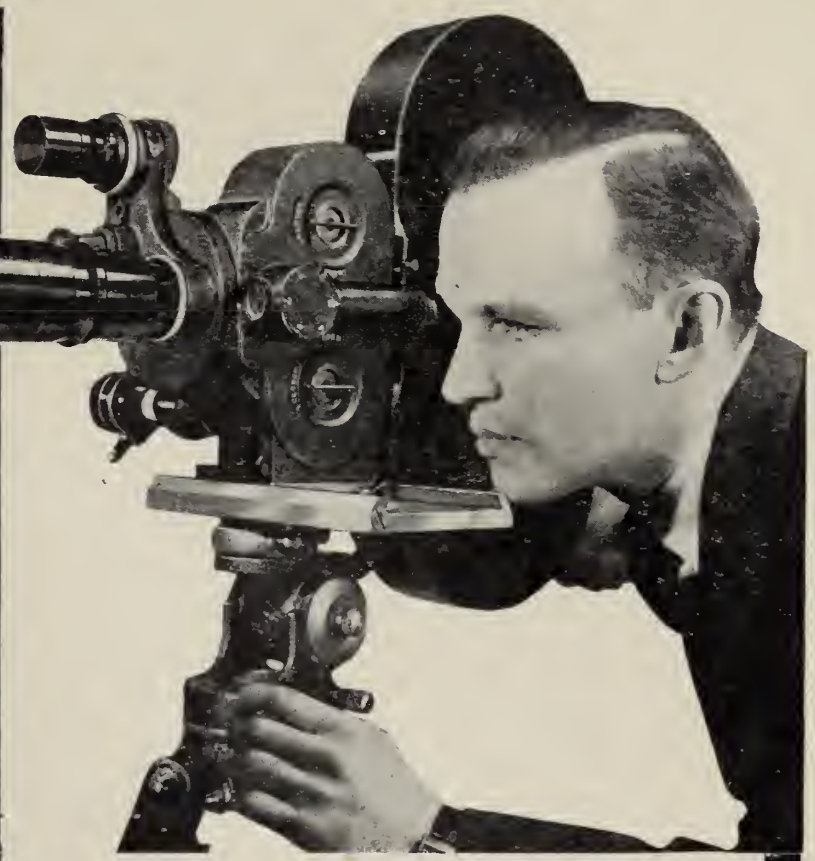

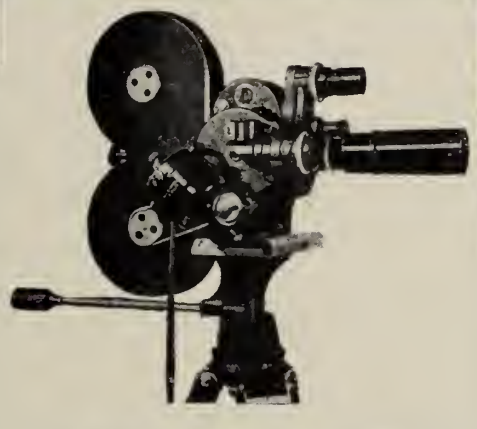

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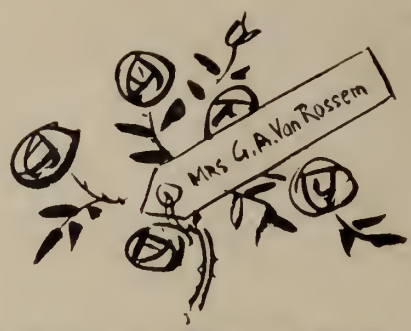

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THIS FREEDOM

An Enquiry into Film Censorship

by GEORGE H. ELVIN

(In this provocative article the General Secretary of the Association of Cine-Technicians raises points about film censorship which vitally affect the growth, power and prestige of the film industry. What are your views? —Editors)

WHEN nearly three years ago technicians saw fit to reply to a statement of Lord Tyrrell's, A.C.T. was told by some of the trade and lay press to mind its own business. Perhaps "The Relief of Lucknow" incident will convince those critics that censorship is very much the concern of technicians, a large number of whom were deprived of their Xmas dinner through the latest action of the British Board of Film Censors.

But apart from industrial reactions we cannot agree that those who make films should not be permitted to express an opinion on what is allowed to go into and what is cut out from film productions. There are other matters, too, tied up with freedom in the film industry of which the Twentieth-Century Fox—*Film Renter* controversy is a recent example.

To return to Lord Tyrrell. He said at the C.E.A. Conference in 1936 that nothing would be more calculated to arouse the passions of the British public than the introduction on the screen of subjects dealing with religious or political controversy. A.C.T. summed up its attitude in a resolution taking grave exception to Lord Tyrrell's views and stating that while holding *"no brief for any particular political belief whatsoever, it must sternly resist any tendency to deprive those working in the field of cinematography of the right which they should enjoy as British citizens, the right of expression in their chosen field of any view not inconsistent with the law. The attempt to limit the function of cinematography exclusively to 'entertainment' is outside the province and duties of censorship; if successful, it will establish the cinema, per se, as inferior in social value to literature and the other arts, and thereby degrade the status of technicians who devote their lives to it.*

The elimination from cinematograph subject material of every controversial question deprives the cinema of the possibility of playing any useful part in the life of the nation, and will have the effect of holding it at that nickelodeon level from which the skill of generations of technicians has raised it to the heights of an art unlimited in potentiality. The underlying assumption that British audiences are incapable of witnessing material with which they disagree without riot is, further, an insult to the British people which, as citizens, the Council (of the A.C.T.) must strongly repudiate."

FUNCTION OF THE CENSOR

The British Board of Film Censors is not an official body, i.e., it is neither set up nor directly controlled by the Government. It is appointed by the exhibiting side

Lord Tyrell, The Film Censor

of the trade. Its function (according to *To-Day's Cinema*) is "to see that nothing gets on the screen to which anybody can take exception. The primary object is the box-office one of not allowing any patrons to be offended in any way." *To-Day's Cinema* went on to say that the task of keeping twenty million people entertained every week without anybody taking umbrage is a stupendous one. I should say it is! Does anyone really believe that this is what the Censor tries to do? If so, there would be very few films receiving his certificate. For example, take "Climbing High," the latest Jessie Matthews film. Alastair Sim spends most of his screen time buffooning a communist and saying "Lenin, O Master." He is typed as a physical coward, work-shy and a gibberer of phrases which the less intelligent members of the populace associate with those who hold a certain brand of political belief. Would the Censor have passed the scenes if instead of a communist we had a fascist? And instead of "Lenin, O Master" he said "Hitler, My Leader?" There being far less fascists than communists in this country the offence caused would be much less. Yet, somehow I don't think it would have got through.

Here are a few examples of the working of the censorship. First, there is the prize incident of the French film directed by Germaine Dulac, entitled "The Sea-Shell and the Clergyman." This was submitted to the British Board of Film Censors, and was totally rejected. The reason given on the rejection form was **"This film is so obscure as to be apparently meaningless, but if it has any meaning, it is doubtless an objectionable one."**

Butcher's made a film called "Variety" a few years ago. One of the scenes was a music-hall of the nineties in which girls were dancing the can-can. This was objected to at least, when the girls kicked their legs right up. And yet similar scenes have appeared, and been passed, in American and Continental films and in at least one English film. There was, of course, a similar case more recently in the British Commercial Gas Association's "New Worlds for Old," when all shots of the can-can dance had to be deleted as they were "too erotic to be shown in this country." The producers, however, had the last laugh on the Censor when at the preview they added a title before the film reporting the cuts, and rhythmically blacked out the offending sections. Each time the girls raised their legs, consequently, the screen modestly went blank, thereby causing hearty amusement to the audience.

Less than a year ago an A.C.T. member submitted a documentary film to the B.B.F.C. He was summoned into the presence and the conversation went something like this:

A.C.T. member: *"Why was the scene of a woman feeding her child at the breast deleted?"*

Official: *"We'll ask the person who viewed the film."* (Entry of second official).

Why did we object to that scene, Miss . . . . . ?"

Lady official: *"Oh, but we always object to that sort of scene."*

A.C.T. member: *"But we took great care, with the position of the camera and the child's head, to ensure it was unobjectionable."*

First official: (embarrassed) . . . . *"was there much exposure ? "*

Lady official: *"Oh no, not at all. I quite liked the scene myself."*

And the scene was saved.

If the above is typical (and I gather it is) the Censors don't exercise their judgment but merely work to a set of arbitrary rules.

Brooke Wilkinson, Secretary to the B.B.F.C.

HOW TO IMPROVE THE CENSORSHIP

While discussing the matter recently with Adrian Brunel, he gave me the following practical and constructive criticisms. If accepted they would go a long way to remedy the present farcical position and I gladly pass them on.

In the first place there should be a Third Certificate. The present "A" certificate does not answer the objections of the Censor's critics, for children and young people *can* see these films if accompanied by an adult. If we had three certificates, the "A" could really be for Adults Only and should at least give us the same freedom as they have on the stage; the second category or "B" certificate would replace the existing "A", that is for all persons over sixteen; and the third certificate would be the "Universal."

Brunel's second point was a suggested time limit for the Censor's certificate or banning of a film. Times change and we change, even if we don't progress; what is passed to-day on the stage would never have been passed in our fathers' time, or even in our own younger days. A film submitted to the B.B.F.C. to-day may obtain a "U" certificate after various excisions detrimental to the picture have been made; but if the certificate were to expire in three years' time, the film, if good enough, could be re-submitted in its original form and at least suffer fewer excisions.

Some countries are already thinking along these lines. In Hungary and Roumania, for example, some while ago there was a regulation that the validity of the Censor's certificate expired in 10 years and 5 years respectively (too long, certainly, but a move in the right direction). On the other hand the Russian Government decreed some years ago that a certificate was only valid for eight months.

Something at least must be done. The B.B.F.C. as at present constituted is a menace to British films. The cinema to-day is inferior in social value to literature and the other arts. Oliver Stanley said in the House of Commons during the Films Act debates that he wanted "the world to be able to see British films true to British life, accepting British standards, and spreading British ideals." While Mayfair drawing-room dramas are the only safe bet to get past the Censor, Mr. Stanley's hope

will never be fulfilled. There have not been a dozen British productions of any special value. The Censor cannot be entirely absolved from blame for this tragic position.

A SECRET CENSORSHIP

There is one feature of the Censor's work which should not go unchallenged. It tries, in effect, to be a secret censorship. The B.B.F.C. tries to persuade firms submitting films on no account to publicise "cuts" or to use even their legal rights of appeal under the Law to include licensing authorities. Actually their form of contract tried to bind firms submitting films to an undertaking in this respect, but they have been forced to alter this and there is now a revised form of contract.

FREEDOM OF EXPRESSION

In dealing with freedom in films, I must not overlook the control which advertisers exercise, or attempt to exercise, over film criticism. A short while ago I met a well-known trade critic returning from a press show.. I enquired what the films were like. He replied: "Terrible." I told him I hoped he would say so. "What," he conntered, "when the firms have eight pages of advertisement in tomorrow's issue." The films were duly praised.

The matter has recently come to a head in an interview between Francis Harley, Managing Director of Twentieth-Century Fox, and "Tatler" of the *Daily Film Renter*. Fortunately "Tatler" also happens to be the managing editor of the paper. The trouble started on December 7th when Twentieth-Century Fox informed the advertising department of that paper that they wished to cancel an advertisement scheduled to appear the following day. After fruitless efforts to contact the people concerned, "Tatler" was summoned the next day to see Mr. Harley and was informed that he would have to pay the penalty for criticising certain of the company's productions, and particularly for approving the B.B.C. film critic's comments on a recent film. The "penalty" would be no advertisements for ninety days, a serious matter for a trade paper. According to the *Daily Film Renter*, Mr. Harley said he would deal with all adverse criticism in similar fashion. "This would mean," the paper continued, "that every picture reviewed by the *Daily* —every executive move—every change of policy—must receive the plaudits of the Press—or else." "Tatler" continues: "The very people who complain against interference in their own activities are now prepared ruthlessly to attempt to bludgeon a policy of constructive criticism offered by the B.B.C. and approved by me. Boiled down, the issue is this—say Yes to everything and you're all right. Dare to say No—and the blackjack. I've known a few surprising things in this trade in my time, but in this year of 1938 this is something entirely new. However, it's refreshing—and I'll promise Mr. Harley this—that if he thinks he can muzzle this paper, or my pen, with big-stick intimidation of this character, he's made the greatest mistake in his life."

I'm glad Twentieth-Century Fox picked on someone who has had the courage to stand up to them and has made such a strong plea for just freedom of expression.

POLITICAL CENSORSHIP

In spite of denials in the House of Commons that there is any form of Government censorship I don't think it will be difficult to write about it. The position is all very neatly summed up in a recent conversation between a representative of this paper and an official of the Home Office, where we asked our representative to go in search of the low-down.

He was told that there was no censorship but, of course, producers and newsreel chiefs were always welcome to seek advice from a Government department. "There never has been any censorship" our representative was told. "Never?" queried our interviewer. "What about during the war?" "There was no censorship then" came the reply. "Newspapers could, of course, submit their copy to us and we might tender certain advice, but they need not take it. Of course, if they didn't there was

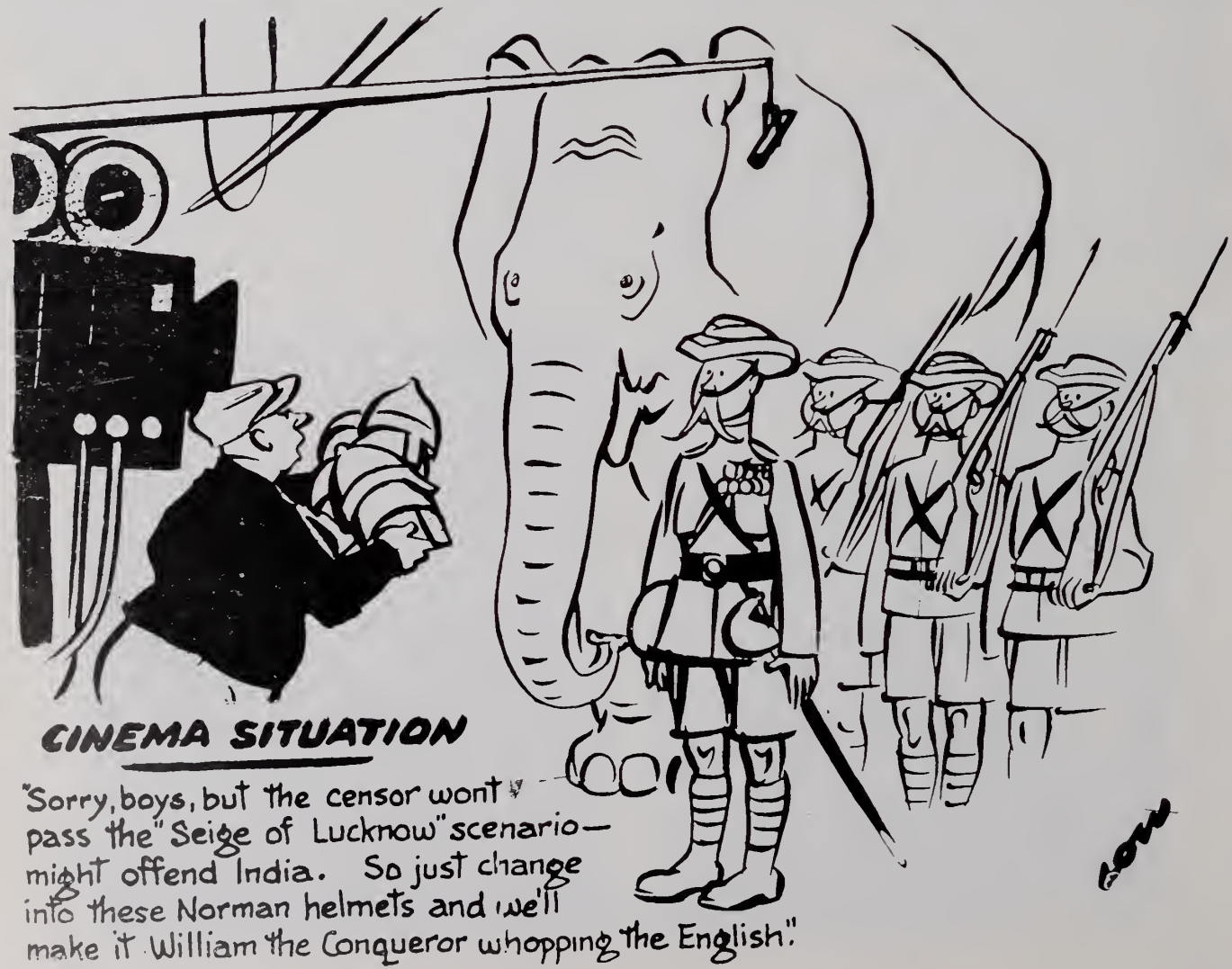
Passed by the Censor

always the Defence of the Realm Act." Which is all very typical of something or other and for the purpose of this article I don't think the term "censorship" is entirely out of place.

Further, although the British Board of Film Censors is a trade organisation it is generally accepted that there is close contact between Government Departments and that body. The recent statement that the B.B.F.C. could hold out no hope of a certificate being granted to the proposed production of "The Relief of Lucknow" bears this out. Lord Tyrrell's official statement said that "the B.B.F.C. has been advised by all the authorities responsible for the Government of India, both civil and military, that in their considered opinion such a film would revive memories of the days of conflict in India, which it has been the earnest endeavour of both countries to obliterate, with a view to promoting harmonious co-operation between the two peoples."

It's a pity this policy was not in force when "The Drum" was made, a film which was banned by the Madras Government, has caused protests to the Indian National Congress and led to pickets advocating boycott of the film being placed outside Bombay cinemas. Some of these pickets were arrested, and armed police, it is alleged, were needed to protect the patrons. There have been protest meetings and processions against a picture which it is claimed libels India. I am told the script of "The Relief of Lucknow" was an entirely different affair and was devoid of the flag-waving imperialistic faults of "The Drum." Is this correct, Lord Tyrrell? And if so, did that have something to do with the banning of the production?

The tendency during the past few years has been to censor or ban films criticising certain aspects of Government policy and, on the other hand, to impose no restrictions on films supporting Government policy. For example, in 1935 the Censor was diffident to grant a certificate to a film made by the Peace Pledge Union on the grounds that it might lead to disturbances. On the other hand there was no action in connection with the Territorial Army Recruiting film made for Oscar Deutsch the following year and which has been shown in nearly a thousand cinemas. I contend that the one film is no more likely to lead to disturbances than the other. The two films, broadly speaking, represent two contrasting views, each held by a large section of the British public. If pacifists are allowed the opportunity of causing a disturbance by picketing cinemas showing a territorial army film, then I feel people who have no time for pacifists should not be denied a similar right. Or, on the other



[*Courtesy: Low and "The Evening Standard*

hand, if the Censor is of the opinion that Mr. Deutsch's film won't cause a disturbance, then by exactly the same reasoning a Peace Pledge Union film should be granted a certificate.

Trade Union matters, too, are now receiving attention. John Grierson recently had to cut from one of his films (not in this case at the instigation of the Censor) a speech about the Tolpuddle martyrs and the right to unionise. It was interpreted as a special plea for the Labour Party and John Grierson said that as a strictly non-party maker of films he could not risk an accusation of that sort. The German film industry has decayed largely through the operation of such a one-track mind. The British industry will follow in the same way if this sort of attitude continues.

"*The March of Time*" is, of course, the main sufferer from the Censor's scissors, so much so that it is closing down as far as a permanent production organisation in this country is concerned. Whatever one's views of the subject matters of this production no-one can gainsay that it has raised the value and prestige of the cinema by straight portrayals of social topics of prime concern to every citizen and cinema-goer.

THE NEWSREELS

The newsreels are another problem. The Censor has no control over them. But it is obvious that indirectly, if not directly, very great pressure is at times exercised. I should particularly like to hear the answer to Mr. Herbert Morrison's question of the Prime Minister in the House of Commons recently. Mr. Morrison asked: "Would the Prime Minister make enquiries as to whether the heads of his own political party have not had a hand in this unofficial censorship?" No reply was given.

Readers will remember the Paramount newsreel at the time of the crisis featuring discussions between Wickham Steed, late editor of *The Times*, and A. J. Cummings of the *News-Chronicle* and between Cummings and Herbert Hodge. They were suddenly withdrawn after the first day of release.

After dogged persistence by Mr. Mander and other members of Parliament, we have had an admission that the Foreign Secretary spoke to the American Ambassador who spoke to the managers of the Paramount Company who then withdrew the offending feature. The Home Secretary who made the statement continued blandly to say "there was no censorship and no undue pressure." What, I should like to ask, would have happened if the Paramount Company had not responded to this friendly talk? And what is "due" pressure?

Part of the trouble is, of course, with the newsreel companies themselves. The majority of their executives are government supporters and their newsreels naturally tend to reflect that fact. (The Honours Lists are beginning to reflect it, too). It is all the more surprising that when they occasionally give expression to a contrary view for one reason or another the reel is sometimes censored or withdrawn.

And if the newsreel companies follow the lead given by the B.B.F.C. and are afraid of disturbances, why their continued shots of Hitler and Mussolini? Seldom do I see a newsreel featuring either of these two dictators but someone or other in the audience gives them "the bird."

The newsreel companies should remember they are *news* reels and not propaganda sheets. They should provide news to appeal to their patrons as a whole and not let their reels be determined by the private interests of their owners or the feelings of officialdom. There is a recent example of the newsreel companies' prejudice overriding news value. Over seven thousand people were at Victoria Station to welcome the return from Spain of the British battalion of the International Brigade. Newspapers described the scene as the most moving and dramatic since the end of the Great War. No newsreel company covered the event. There would be no cine record at all but for the action of A.C.T. and E.T.U. members and the generosity of a number of firms who, realising the importance of the occurrence and the events which inspired the recruitment of the Brigade, gave their services to the International Brigade Dependents and Wounded Aid Committee.

SUB-STANDARD*

I have dealt so far with the 35mm. film. A brief reference should, however, be made to the sub-standard position. The provisions of the 1909 Cinematograph Act do not apply to non-inflammable film, and sub-standard stock provides a medium for showing films on unlicensed premises. Political, religious, educational and other bodies consequently use non-inflammable films for shows which would not be possible if the safety and other regulations of the Cinematograph Act had to be complied with. The Censor also, being a trade nominee, has no authority over such films.

There is a growing agitation in some quarters for regulation and control over exhibition of sub-standard films. It is not primarily associated with public safety but, in my opinion, is due to fear of competition being offered to established cinematograph interests, and an effort to restrict the use of the screen for propaganda. (Working-class organisations, for example, could not show films if such regulations applied. They could not afford the expense which would be necessary to bring the premises now used for the exhibition of sub-standrd films into line with regulations similar to those of the Cinematograph Act, and, of course, they could not afford—even if the cinema owner was willing—to hire a commercial cinema for a show to a restricted audience).

Everybody recognises the need for adequate safeguards, particularly where inflammable material is concerned. But there is no more risk at a non-inflammable show than at other functions such as concerts, whist drives or even a magis lantern show. The question of audience safety clearly does not arise.

It is good to hear that the sub-standard Cinematograph Association is taking the matter up and is asking the Home Office to receive a deputation on the matter.

PROTECT OUR THREATENED FREEDOM

Wickham Steed, in his recent book, *The Press*, said "It is freedom to criticise that is essential to liberty in civilised communities, or as a distinguished British civil servant put it, not long ago, it is the right to tell the Government to go to Hell. Without it there can be no guarantee of personal freedom and no certainty of progress, no protection against the arbitrary whims of fallible dictators and no effective exercise of private judgment."

"Tatler" applied this theme to the screen press when writing in *The Daily Film Renter* recently. He said there is in the British film industry "an extraordinary weakness and tendency to give way to the smallest suggestion that a scene—whether it be in a newsreel or a production—doesn't commend itself in high political quarters. . . . **Generally there's far too much desire displayed, whenever anybody lifts a finger, hurriedly to placate what is supposed to be official distaste.** I'd like to see Hollywood, and in a similar degree this industry, take a firmer

**See also the article "Civil Liberty" on page 162.*

attitude. So far as I can see you are shot at from every direction, and the only thing to do if you know you're right—is to stick to it—and demand equality of freedom with the Press."

The freedom of the Press is another story. The National Union of Journalists, in conjunction with the National Council for Civil Liberties, have started a campaign to protect their threatened freedom. The freedom of the screen press, as well as the printed press, is at stake. As Wickham Steed says, "Freedom of speech depends ultimately on the freedom of the Press—and to-day that freedom is being threatened more and more." Let all sections of the trade act before it is too late, and freedom is travestied to mean—as it does in totalitarian countries—perfectly free to do exactly as you're told.

[By courtesy of Wyndham Robinson and "The Star"

DISTRIBUTION OF RUSSIAN FILMS

The following information is to hand:—

Twenty-one Soviet films, including "*The Youth of Maxim*," and "*Deputy of the Baltic*," have been shown in thirty towns in France (Paris, Marseilles, Lyons, Nice, Boulogne, Bordeaux, etc.). In the principal towns of Czechoslovakia 22 Soviet films have been shown, amongst them "*We of Kronstadt*," "*Chapayev*," and "*Peter the Great*."

In Denmark 13 Soviet films were shown during the month of August; in Norway, 13; in Sweden, 13; in England, 5; in Bulgaria, 5; and in Afghanistan, 3. During that month 31 Soviet films were shown in the United States, amongst them "*Lenin in October*," "*The Return of Maxim*," "*Deputy of the Baltic*," "*Peter the Great*," and "*If War Should Come*."

William Dieterl, director of "*Zola*" and "*Pasteur*," says that "*Peter the Great*" is the best historical film that he has ever seen.

American spectators, it is claimed, show great interest in Soviet productions. Cinemas which show Soviet films have sold more seats during 1937-38. Four hundred and fifty cinemas showed Soviet films, while in the same period only 100 cinemas showed French films, 40 cinemas Hungarian films, and 20 cinemas Scandinavian films.

BIG SCREEN TELEVISION

THE Armistice ceremony is not by any means an ideal subject for Television. It is too static. One felt relieved when someone finally did move. Apart from this for the moment, however, it really seems unfair to criticise at the birth of such an incredible invention.

The primary fault seemed to be the distortion all round the edges of the picture. This would presumably be caused by the projection from a convex surface (the screen end of the Cathode Ray Tube is convex) on to a flat screen. It might be eliminated by having the screen slightly concaved, though this would scarcely be satisfactory for the audience.

Although weather conditions appeared to be excellent, it was a bright sunlit day, there was considerable interference with long shots, rendering faces completely blank. This might have been caused by haze, or simply by the enlargement of the picture, anyway in order to find Chamberlain, it was necessary to " look for the man with the umbrella "—the only difficulty in this case being that they all had umbrellas.

The sun in the lens proved a little too much for the shot of Big Ben, which, of course, could not be helped.

Whenever we came into the close shots, however, the results were remarkable; those of the King were quite sharp, and the bald patch on the back of the Primate's head showed to great advantage.

The screen was less than half the size of the regular Tatler screen so further enlargement at the present would seem to be impossible. But there has been improvement. About six years ago I witnessed, I think, the first public demonstration of projected Television. It was at the Metropole and the screen was about six feet high by two feet wide, a most awkward shape. I remember also being able to see the vertical lines through the picture—entirely absent in the present demonstration.

Unfortunately, there was a lack of variety in angles, and the one long shot of the Cenotaph became very monotonous—forcing perhaps unfair criticism of the quality. Also, inevitable comparison with the newsreel caused the Television to suffer considerably. But on the whole the demonstration was no worse than that of an early film, and from this one can safely assume, I think, that in the not very distant future we shall be having regular Television in all cinemas. P.L.A.

INTRODUCTION TO HOLLYWOOD

(*Continued from page* 150)

closest co-operation all-round, especially between the cameraman and the laboratory.

I had the greatest admiration for the Consolidated Laboratories and its amiable Manager, Mr. Joe Aller, who made it possible for me to view and study thoroughly this laboratory, which is in every respect ideal.

It is not possible to relate in detail all my impressions and observations, gathered in the various Hollywood studios, laboratories and camera factories, but I promise you an article for a later issue of *The Cine-Technician* on the differences in Hollywood practice which interested me.

May I wish you and all A.C.T. members a Happy and Prosperous New Year?

Yours very sincerely,

Otto Kanturek.

"N.S."

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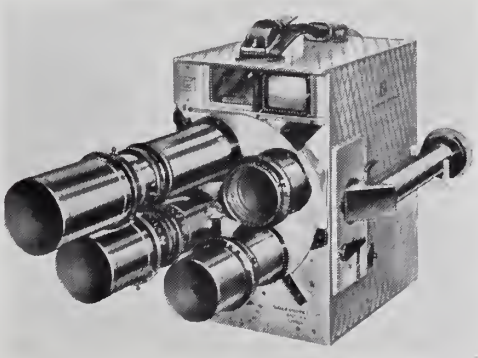

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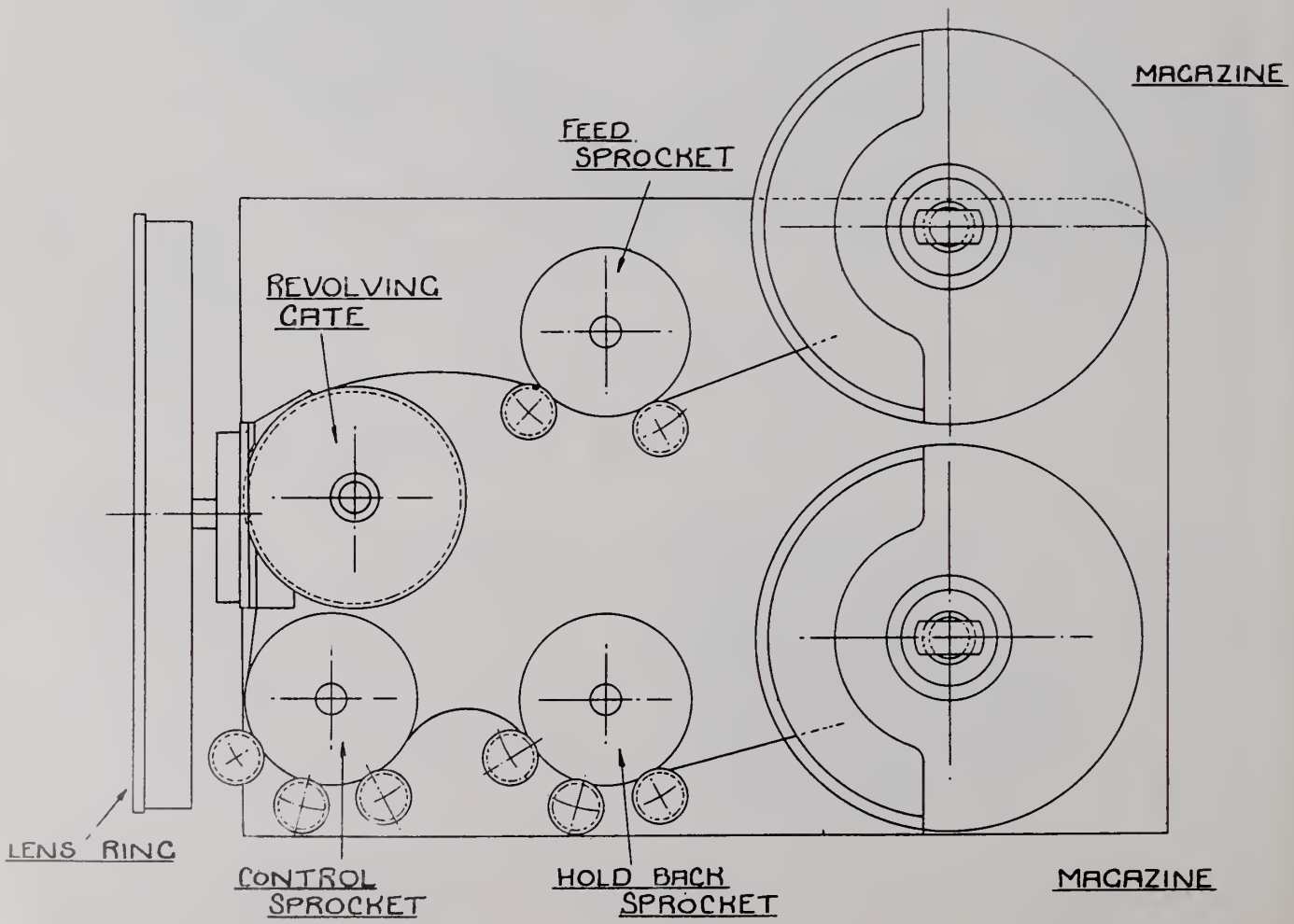
by D. H. GEARY

HERE is a marvellous creation of British camera engineering skill—a slow motion camera that will take 3,000 pictures a second. Constructed by Vinten, the camera is carrying out important investigations at a Government establishment, and two further models have been built. The camera was designed purely for research purposes, although it has its uses for documentary films. The enormous film speed precludes the use of any form of intermittent motion, and therefore the film must run continuously. In front of the gate is a duralumin ring, perfectly balanced, and mounted in this ring is a series of 48 matched lenses. The lens ring is geared to the film traction apparatus so that the peripheral speed of the axes of the 48 lenses is the same as the linear speed of the film. It will be seen from this fact that when the film and any given lens come opposite to the light aperture in the gate, the film and lens are relatively stationary. By this method full advantage is obtained of all light reflected from the object to be photographed.

Between the film and the lens ring is an adjustable slit which acts as a variable shutter. The lenses employed are of 2in. focal length with an aperture of f/3.5.

The focus is set at infinity by adjusting the position of the gate in respect to the lens. In order to enable the operator to photograph objects at any distance from three feet to infinity, a series of auxiliary spectacle lenses are supplied. These are marked for the various distances required, such as 58 inches, 100in., 200in., and so on.

These auxiliary lenses are inserted in a slide in front of the lens ring. It is obvious that as simple a film path as possible must be employed, so it is necessary to have large openings in the magazines. The magazines accommodate 400 feet of film and are so constructed that they must be in a closed position before the camera can be opened or closed. Owing to the high speed of the mechanism a special form of lubrication has been devised, by means of which oil is inserted to all moving parts under pressure. Of course, special precautions are taken to prevent the oil coming into contact with the film. It is also important to forecast the results which might



obtain should the film break in the camera. Owing to the terrific speed at which the film is travelling, it is necessary to avoid fire through friction and to safeguard any such loose film coming into contact with moving parts. To prevent this a device of special stripping plates has been incorporated as sprocket protection.

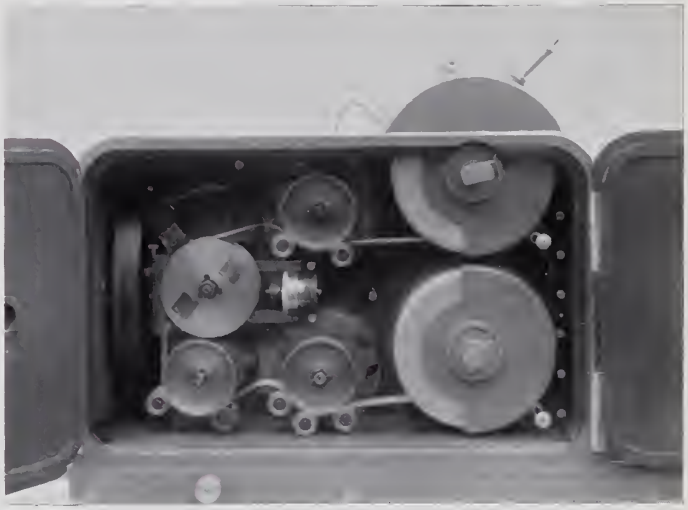
The driving medium is 4 h.p. motor with heavy fly-wheel, the power being transmitted through a friction clutch and a 3-speed gear box. The camera and motor are set upon a cast iron bed plate, which in turn is mounted on an adjustable stand. The method of operation is as follows:—

1. The distance of the object to be photographed having been determined, the appropriate auxiliary lens is placed into position.
2. The camera is then lined up on the subject by inserting a piece of matt film in the gate and viewing through a prism at the side.
3. The 400 feet magazines are then placed into position, the top one closed with a sufficient amount of film left projecting through the trap, and the camera is laced, the end of the film being attached to the take-up bobbin.
4. The doors are then closed and screwed tight which opens the magazine traps. Any slack on the film is then taken up by means of the small knobs projecting from the magazines for this purpose.

The motor is started and the phenomenon to be photographed is commenced. The clutch handle is then gently but firmly thrust into the running position and the photograph is taken. It is necessary in research work to determine precisely the speed at which the phenomenon photographed occurs. As a tachometer or similar speed recorder is not sufficiently accurate in a large number of cases, a special device is incorporated for registering the exact speed of the movement. This consists of a high tension spark focussed on the edge of the film just above the gate. This spark is controlled by means of a tuning fork operating the contact supplying the current to the high tension spark. It will thus be seen that should we, for example, have five spark marks in three frames, we can tell, knowing the tuning fork is regulated to 2,000 periods per second, that the frames have been taken at the rate of 1/1200 part of a second each frame. When observing phenomena photographed by means of this instrument it is of course possible, in the case of a bullet passing a given object, to stop the projector and take an accurate measurement on the screen of the distance between the travelling and static objects. Or again, in the case of mechanical phenomena such as valve bounces on an internal combustion engine, to determine the exact amount of bounce at a given period in the progression of the phenomenon. Should the phenomenon be of extreme speed, for example an explosion, the camera is fitted with a special device so arranged that immediately the film speed is obtained, the camera, through a series of electrical contacts, actuates the object to be photographed.

To give some statistical idea of the terrific speed of the film in this instrument—at the normal camera speed of 24 frames per second the film is travelling at a rate of 1,800 yards or just over a mile per hour, whereas with this camera running at its fastest speed the film is travelling at 128 m.p.h., *just over two miles per minute.*

This camera was exhibited at the recent Cinema Exhibition at the Royal Photographic Society. A model will shortly be available for hire from Messrs. W. Vinten, Ltd.



THREE-DAY BATH FOR MADELEINE

According to "The Daily Mirror," Madeleine Carroll has been having her fill of a bathtub scene.

"I feel like a prune—all shrivelled up," she said. "The script for the film, 'Café Society,' calls for me to take a bath—or rather for me to be pushed, with all my clothes on, into a tub of hot water by Fred MacMurray.

"I spent three full days in that tub, with and without water, but mostly with—and mostly hot. Gradually my skin began to shrivel, and the longer I was in the water the more wrinkled I got. I thought the director would never be satisfied with the scene. Once he got so interested that he climbed in the tub with me—there was no water in it then.

"Mr. MacMurray was in it, too, and there we all sat, discussing our problems."

INTRODUCTION TO HOLLYWOOD

A Letter from OTTO KANTUREK

Dear Mr. Elvin,

I should like to take the opportunity of expressing my sincere thanks to you, our Association, and Mr. Denis Wratten of Kodak Ltd. for the helpful letters of introduction, which were of great value to me as they immediately brought me in touch with the right people. It is much easier to get into a secret organisation or into the palace of an exotic ruler than into the major studios of Hollywood, especially if one is not there for business reasons, but wishes to study the working methods of and view the biggest film centre of the world—HOLLYWOOD—as a private individual. The General Secretary of the I.A.T.S.E., the most important Trade Union of the film industry in America, Mr. Herbert Aller, after having read your letter, immediately informed some of my old friends in Hollywood of my arrival there and took great pains to be of assistance to me in every respect.

My good friend, Ted Sparkuhl, the cameraman of "Wells Fargo," "If I Were King," etc., arrived the next day to show me over the Paramount Studios, to which he has been under contract for some years. Furthermore, I was able to visit the M.G.M., Goldwyn U.A., Warner and other Studios. It would take too long to describe to you every studio in detail but I would just like to mention a few things which impressed me very much. For instance, Warner Bros. and First National in Burbank are absolutely a town in themselves. Apart from the 24 stages, which in their extent are somewhat similar to those at Denham and Pinewood, there is an exterior lot which it takes 20 minutes to cover by car to see the streets and squares, solidly built, ready for shooting. From Portland Place in London, one walks straight into one of the big boulevards of Paris, crosses streets in Vienna and Rome, and round the corner steps right into one of New York's avenues, seeing in the distance the canals of Venice. All these sets are true copies of the originals, dressed with every detail so that for the moment one is absolutely under the impression of seeing the real thing. Even the public telephone booths in the different streets and squares contain the telephone apparatus used in the respective countries and are—strange as it may seem—in working order, i.e., lifting the receiver, one gets the exchange of the studio, ready to receive or give orders and messages during shooting on the lot. Lamps and electric advertisements are connected everywhere and in working order; even the lamp stands in use or to be used are mounted, and all the cameraman has to do is to say what types or lamps are needed. The main cables, like street cables, are under the surface, a distribution truck is to hand, the respective contacts are connected, and the light for "Day" or "Night" burns!

Hollywood's climatic conditions are, of course, so favourable that it is easy to keep such a lot in order.

In the Goldwyn U.A. Studios, through which I was shown by my old pal Rudolf Maté, I was especially impressed by the tank in which all the difficult shots for the film "Hurricane" had been taken. This tank, with its waves, wind machines and enormous round horizon, is a masterpiece of technique, and it is hard to believe that one is not on one of the South Sea islands but in a studio on one of the main streets of Hollywood, the Santa Monica Boulevard.

The easy but nevertheless expert organisation of the

camera departments creates a strong impression. Everywhere the same cameras, mainly Mitchells, the same dolly trucks, and nearly always the same lenses. At the first moment it strikes one like a factory system but after giving the matter a little consideration, one comes to the conclusion that this standardising is a big advantage to the technician. There are no secrets as regards the cameras; on the contrary, as everyone is using the same type, suggestions for adjustments are exchanged amongst cameramen at the A.S.C. (the A.C.T. of Hollywood), mutually criticised, and recommended to the manufacturers, who work in close co-operation with the cameramen. This collaboration is responsible for that smooth and even finish, characteristic of the best American productions. The same applies to all new inventions, raw film, lamps, dollys, etc. Any new lens or soft glass appearing in the American market is known to every cameraman in Hollywood within three days, with all its advantages and disadvantages, through descriptions, lectures, experiments and practical results.

Working methods are nearly the same as in England. The chief gaffer, working mostly for the same cameraman, knows exactly his technique and is therefore able to prepare a set to such a stage of perfection that the cameraman need only add his personal touches, and can otherwise give his whole attention and time to the stars, who have their special privileges as regards cameramen. If a star is lent to another studio, not only the cameraman, but also the chief gaffer, in fact the whole camera unit, is hired out as well, a system which produces the best possible results. Everybody is familiar with each other's working methods, thus saving much time and experiment. The stars, too, do their utmost to assist the cameraman. In short there is the

(*Continued on page* 147)

QUESTIONAIRE.

"THE CINE-TECHNICIAN" WANTS TO KNOW.

1. Do you keep your copies of "The Cine-Technician"?.....

2. Which issue did you like best and why? .....

.....

.....

3. Are you in favour of there being an index to each issue? .....

4. Do you think there are (a) too many illustrations? .....

(b) not enough illustrations? .....
(Strike through line which does not apply)

5. (a) What are your preferences among the regular features? (Please number 1, 2, 3, 4, 5 in order of preference):—

Lab. Topics	.....	Book Reviews	.....
Cinema Log	.....	Technical Abstracts	.....
Pigswill's Page	.....		

(b) Do you consider that any of these features should be removed? If so, indicate by drawing a line through it above.

6. Which general type of article do you prefer? (Please number 1, 2, 3, 4, 5, 6, 7 in order of preference):

..... Detailed Technical (e.g, *Three New Negatives*)

..... General Technical (e.g., *Shooting in Technicolour*)

..... Film Industry Topics (e.g., *This Freedom*)

..... General Trade Union (e.g., *Holidays With Pay*)

..... Individual Experiences (e.g., *Shooting in Holland*)

..... Film Industry Abroad

..... Historical (e.g., *Evolution of Cinematography*)

7. Are you in favour of more space being given to local studio and laboratory affairs? .....

8. What new subjects do you consider should be introduced? .....

.....

.....

9. What is your general opinion of "The Cine-Technician"? (Strike out those which do not apply):—

Excellent. Good. Fair. Bad. Lousy.

NOTE: You want the best possible magazine. So do we. Co-operate with us to get it. Answer the above questions. See that other members answer them. And forward the completed form to us NOW.

Send it by post direct to the Editors, "The Cine-Technician," 145, Wardour Street, W.1., or through your local Secretary.

THE EDITORS.

HOLIDAYS WITH PAY
AND AFTER

Thousands and thousands of Trade Union members have benefited from the welcome extension of the Holidays with Pay movement. Thousands more will benefit this year.

Many Union members receiving Holiday Pay will no doubt wish to take their families away with them for a week by the sea or in the country. To know that the whole family is enjoying a healthful holiday will in itself be a source of happiness and peace of mind. To have a family holiday—and indeed to have any holiday that is to be of maximum benefit —Union members will do wisely if they resolve to supplement their Holiday Pay by personal savings.

Preparation for this year's holiday should be going on now, and the most convenient way of putting by a bit of money for it week by week is to join a NATIONAL SAVINGS HOLIDAY CLUB. Clubs of this kind have already been established in a large number of places of employment throughout the country, providing employees with a secure means of saving personally for holiday purposes.

TRADE UNION OFFICIALS in a number of important industries are giving valuable support to this scheme which can obviously be of great service to Trade Union members.

The National Savings Committee offers every assistance in the organisation of Holiday Savings Clubs, including the provision of a speaker to address prospective members and an explanatory circular letter for distribution. Membership cards, literature, etc., are supplied free.

Enquiries should be addressed to the
NATIONAL SAVINGS COMMITTEE
(*Ref. R 21A*), LONDON, S.W.1.

THE YEAR'S CREDITS by J. NEILL-BROWN

IN the lives of the film technicians there can be but a minimum of events during 1938 that stand out as of major importance. The great shadow of unemployment has darkened the whole horizon to such an extent that they may be forgiven if they have seen nothing that is deserving of recognition at all, let alone honourable mention. The main events have been determined by the new Films Act, which, promising a new era in British Film production, gave us something with one hand and more than took it away with the other. But in so far as it has given us anything at all it may be worth examining what that something is.

In a recent examination of films shown in America the American Board of Review listed what it considered to be the best ten films of the year in the English language; they were (with the British films shown in italics): "*The Citadel*," "Snow White and the Seven Dwarfs, "*Vessel of Wrath*," "*Owd Bob*," "Sing You Sinners," "*Edge of the World*," "Of Human Hearts," "Jezebel," "*South Riding*," and "Three Comrades." Only a few weeks ago Stephen Watts in the "Sunday Express" gave *his* opinion on the ten best of the year and lists: "Snow White," "*The Citadel*," "Three Comrades," "*Yank at Oxford*," "You Can't Take It With You," "Nothing Sacred," "*Pygmalion*," "Slight Case of Murder," "*Sixty Glorious Years*," and "*South Riding*." Without commenting on the respective merits of the two lists, it is worth noting that in both of them the five out of the ten are British, or putting the two lists together eight out of sixteen are productions made in this country. In the American selection there is an even greater distinction in that (counting out "Snow White" as not being of the general type of studio production made with living artists) all of the first three normal films are British. In both selections pride of place is easily taken by "*The Citadel*," and "*South Riding*" ranks as ninth in the one and tenth in the other.

While occasional British films have appeared in American lists from time to time, this must be the first year of our history in which such a large number have stood the test of transatlantic approval. Is it just a sudden and transient mood of the successful entrant in the race turning back to help the lame dog over the style, or have they really deserved it? Do they represent the best qualities that Britain can put onto the screen or has it been such a phenomenally bad year for America that we're only good by contrast with Hollywood at her worst? Are they, in the truest sense, British, made by British workers who really know this job of film production, or are they, as a member of Parliament in a speech in the course of the Films Act debates visualised they would be, Hollywood productions made on a distant location? Is Hollywood, faced with the legal obligations of the Act, merely saving its face in England and its money in America?

Certainly from the appearance of the first of these films to be registered under the new Act we get a very strong affirmative to the last of these questions. "*Yank at Oxford*" was the nearest thing to a Hollywood production ever seen in this country. Officially produced by Michael Balcon, it was supervised by Ben Goetz from M.G.M.'s home studio, and the script was developed from an idea by J. Monk Saunders, also American. I understand that Frances Marion worked on the script too, and that much of it was actually done by M.G.M.'s scenario department in America. The three main artists were Robert Taylor, Lionel Barrymore (both U.S.A.) and Maureen O'Sullivan (Irish but regarded as a Hollywood product). Director Jack Conway, cameraman Hal Rosson, and supervising editor Margaret Booth were also from America, and all these artists, technicians, and supervisors taken together certainly seemed to justify the prognostications of the member of Parliament already quoted. But this was the company's first attempt at making a super film in England, and to a certain extent they were entitled to take all reasonable precautions. The technical credit list of their second film, "*The Citadel*," shows how they profited from their first experience, having only one foreign artist, Rosalind Russell, and two foreign technicians, King Vidor the director and Harry Stradling the cameraman. Victor Saville produced, Ian Dalrymple was responsible for the script, Lazare Meerson (Russian but naturalised English) was art director, C. C. Stevens recorded, Charlie Frend cut it and Pen Tennyson was first assistant director. All of them except Saville and Vidor were members of the A.C.T. All of them were people who had worked for years in our studios, quietly and effectively learning the business, and it is very gratifying to find that at long last they receive the credit that is their due. Take the case of only one of them, Charlie Frend, which illustrates most of them. He went to B.I.P. many years ago as an assistant, and went through the usual routine of the job before he was entrusted with a picture of his own, but when he did do his first picture it was a very creditable job. Followed a long spell in which he was given almost all types of pictures to work on, cheap comedies, musicals, dramas, and so forth, some good, some not so good. But he gained the experience that entitled him to be described as one of our best cutters, and it is with great pleasure that we see his name as editor of what has been taken by every critic and trade paper to be the best picture of the year. In this connection the congratulations of the A.C.T. go to all our members who worked on this very fine film in whatever capacity, exalted or humble. It demonstrates what we have for so long maintained—that there are plenty of British technicians in this country who are capable of doing the best work in the world, comparable with that of any foreigner. We are glad that in their latest film, "*Mr. Chips*," M.G.M. have gone even one better in the matter of staff and have appointed an English cameraman, Freddie Young.

Reviewing the remainder of the best pictures of the year we again note that in "*Vessel of Wrath*" all the key positions except those of director (Erich Pommer) and cameraman (Jules Kruger) were filled by Englishmen; in "*Owd Bob*" there was not even one foreigner and the director himself was a member of A.C.T.; in "*Edge of the World*," of which we have written much in the past, both cast and crew were English and the latter were again our members; "*South Riding*" had Harry Stradling as its sole representative from abroad and again with the exception of Victor Saville, producer and director, we had a 100% A.C.T. crew; "*Pygmalion*" we have

(*Continued at foot of next column*)

THE ANGLO-AMERICAN TRADE AGREEMENT

The Anglo-American Trade Agreement has been signed. There is no mention of the film industry apart from the stabilisation of present duties on film by ten of the British colonies. But that does not necessarily mean that the industry was overlooked in the discussions concerning the pact. It will be remembered that during the Films Bill debates a Government spokesman denied that the forthcoming trade pact with America had in any way influenced the terms of the Bill. Other people thought differently and it seemed ominous that the new American Ambassador appointed to London about the time negotiations were started was a former motion picture executive.

Readers may have heard Raymond Gram Swing's broadcast from Washington on November 19th, when he referred to very important meanings beyond the actual deal. "One is," the *Listener* reports Mr. Swing as saying, **"that it begins to untie the Ottawa system.** . . . When the Ottawa system was set up, and Britain and the Commonwealth began making a self-contained and semi-exclusive economic Empire, it was the Americans more than any other people who paid the price for it." The first quota Act emerged directly from the Ottawa Imperial Conference. **Were the low quota rates in the new Films Act the price which had to be paid for the new trade agreement?** We cannot feel entirely convinced by the Government denials.

THE YEAR'S CREDITS

(Continued from previous page)

written of so often that we need hardly remind you of its A.C.T. character or of the fact that, like "*South Riding*," its only foreign technician was Stradling; "*Sixty Glorious Years*" is again a triumph for English staff, being all-British in its key positions, although more may have been contributed to it by Merrill White than is indicated by his official description of "adviser" on the cutting. In only one of these eight films is there a case of a picture being made without members of this union taking the principal positions, and exclusive of the few foreigners all but three of the remainder have been members for a long time.

Although it was made in England the "*Yank at Oxford*" appeared on our screens with the stamp of the I.A.T.S.E. in the corner. This stamp is used by the American producers when the labour conditions conform to the requirements of the local union, the International Alliance of Theatrical and Stage Employees. It seems a little unfair to stick this stamp on a picture made in this country, but it has a significance for us that ought not to be missed. The American employer recognises the position and standing of his employees, he puts it on the film for everyone to see that they are members of their appropriate organisation. It gives those technicians the satisfaction of knowing that their employer realises that they are more than just people who do the necessary job and are then forgotten; they are qualified workers with the right to the terms and conditions that their organisation demands. The stamp is more than a mere insignificant reference to the existence of the union; it is a guarantee of the standing of the men and women

(Continued at foot of next column)

LOUDON'S REASONS FOR THE DEPRESSION

Mr. Norman Loudon, Chairman of Sound City (Films) Ltd., in his speech at the company's recent Annual General Meeting, attributed the depression in British film production to four principal causes. The first was the withdrawal of insurance finance. Sufficient films had been made to fulfil renters' quota but much more of the money had had to be found by the renters themselves than in previous years. While some of the larger exhibitors had also made films, the total volume of British production had fallen considerably, and, Mr. Loudon thought, would remain low until finance continued to flow more freely into British production channels.

Secondly, the reduction of the renters' quota from 20% to 15%, to compensate the renters for the increased cost of such films, had reduced production requirements by 25%.

Thirdly, the delay in the passing of the Films Act meant that not until April 1st, 1938, could renters make plans for the year which started on that date, resulting in a loss of three months—the normal time between commencement of production and registration. Hence, renters of foreign films had complied with the Act by making films under the double and treble quota clauses. The speaker thought, however, that these renters would, before long, revert to the practice, which they perfected during the currency of the old Act, of complying with their legal obligations for the smallest possible outlay of money.

The fourth reason instanced was the wave of "re-issues" following a decline in American production. This benefited the renters both in direct income and in reducing their quota requirements, since they only had to find British films to offset their new foreign films. (It was not pointed out, however, that this meant less work for all grades of studio employees, in America as well as here).

Mr. Loudon added that he saw some hope for the future in the increasing renters' quota percentages and in the fact that, under the cost clauses, most films would cost about twice as much as previously, so that more time would probably be spent on making them. The exclusion from renters' quota of films made in the Dominions and Colonies would also help, while, if the Americans reduced their imports in order to cut their quota obligations, again there would probably be a larger distribution for British pictures in this country.

THE YEAR'S CREDITS

(Continued from previous column)

who worked on that film. Practically every one of the eight pictures I have spoken about in this article have been made with A.C.T. labour in the key technical posts and two of the directors are also members. I sincerely hope that the day will come when British films will bear an A.C.T. stamp on the credit titles that will show to the trade in particular and the world in general that such film was made under what we regard as good conditions and that the people mentioned on the technical credit list were paid wages consistent with the responsibility of their jobs. We must have agreements first as to those good conditions and fair wages, but when we have got that, let us have the public recognition that we deserve.

CINEMA LOG By KENNETH GORDON

The Workers' Film Association

The end of 1938 saw the launching of the Workers' Film Association, at a conference and film display at Transport House presided over by Mr. H. H. Elvin, Chairman of the National Joint Film Committee.

The purpose of this Association, which is under the management of Alderman Joseph Reeves and has its offices in the same building as A.C.T., 145, Wardour Street, W.1, is to advise the democratic movements on film production, to establish a Central Library of films illustrating Labour's aims and objects, and to act as agents of all recognised film libraries in this country, so that film exhibitions can be given by Labour, Trade Union and Co-operative movements, with, I am sure, excellent propaganda results. Sub-standard sound projectors can be hired or obtained on simple hire purchase terms from the Association, and some hire rates of talking films are as low as 5/– per reel.

The Workers' Travel Association have already had a number of films made of their activities, including "Let's Have a Holiday" (Strand Films), "Across the Border," "Mediterranean Journey," and "Passport to Europe" (Realist Film Unit).

The new Association was responsible for a film which was shown at the display, called "Advance Democracy," sponsored by the London Co-operative Societies' Joint Education Committees and produced by Ralph Bond for the sum of £900. This is the first of a series of five to be made for this body. Quite a good film, but in my opinion one that would only appeal to the converted. Surely these films should be made to convert the middle-class to the cause of Labour. "Advance Democracy" would, in my opinion, tend to put their backs up. Providing the W.F.A. keeps clear of the amateur and remembers that propaganda must be subtle and not blatant, I think the establishment of the Workers' Film Association one of the finest moves of the Trades Union Congress has made towards modern propaganda. We look forward to seeing a fleet of mobile projectors to enliven street meetings, and we wish Manager Joseph Reeves the very best of luck in this important venture. His knowledge of production and exhibition for the Royal Arsenal Co-opertive Society gives him the very necessary qualifications. I believe that the W.F.A. will only advise and negotiate for production at present, but as time goes on it may one day run its own production units, both in the 35 m.m. and 16 m.m. fields.

You're Telling Us, Mr. Golden!

That American pictures were the bread and butter of foreign exhibitors and that excessive nationalistic propaganda by foreign Governments through the medium of motion pictures is likely to arouse increasing irritation and resentment on the part of movie-goers abroad, was a statement made by Nathan D. Golden, chief of the Motion Picture Division of the Bureau of Foreign and Domestic Commerce, at a conference in New York recently. He stated that 70 to 80 per cent. of the world's screen time is occupied by American films, and that 40 per cent. of all revenues received by American film producers for their products are derived from foreign markets. "During the first nine months of the present year," he said, "not less than 145 million feet of American motion pictures were sent to foreign countries . . . Europe being by far the best market in point of dollars and cents returned, and Latin America the best measured by footage consumption."

The main problems of the American film industry to-day, in his view, are foreign government restrictions, high taxes, exchange control, tightening censorship, and a growing national tendency to coddle local film industries abroad. Directing attention to various foreign censorial idiosyncrasies, Mr. Golden mentioned that all kissing scenes are prohibited in Japan, spy plots are banned in Peru, any film suggesting cruelty to animals is taboo in England, and Greece bans movies that are even remotely connected with movements of social revolt (even the 150-year-old French Revolution is barred). He did not mention political censorship, but no doubt *The March of Time* could mark his cards.

Where To Spend Holidays With Pay

To those young people who have holidays about August 5th to 20th, a trip to the North of France at a cost not exceeding £6 for a fortnight, inclusive of fare from London, seems a very exceptional offer. The London Youth Council of the National Union of Clerks proposes to organise an International Youth T.U. Camp near Paris. If you are interested let the A.C.T. office know at once.

Cole For Parliamentary Honours

Sidney Cole, the well-known cine-technician, and one of the Associate Editors of this Journal, has been adopted as the prospective Labour candidate for St. George's, Westminster. He will oppose Duff Cooper in the coming General Election.

I am sure we all wish him well, whatever our personal politics may be. It will be a tough fight but then Sid Cole is a tough lad, and the more representation our industry can have in the "House" the less likelihood there is for stupid legislation to be passed to affect adversely the lives of cinema workers.

Shaw Jones Marches On

Shaw Jones, the Newman Camera expert, has opened new and extensive premises at 59, Shaftesbury Avenue, W.1, known as the London Photographic Centre, where besides running his cine camera hire service he has a number of ultra modern darkrooms, fitted with sinks, dishes, enlargers, etc., in which photographers can carry out tests, experiments, or develop and print their stills. Each of these darkrooms is fitted with its own telephone for the convenience of clients.

The services also include the use of drying cabinets, glazing machines, trimmers, thermometers, clocks, dishes and comprehensive washing facilities, all for the remarkably low price of 2/6 per hour. Photographic chemicals and papers are all kept in stock, and a reference library which also contains current photographic Journals is at the disposal of photographers using the Centre.

The writer, who was personally conducted over the plant, was very much impressed. Shaw Jones is supplying a long felt want. Technicians know that they can always be certain of the excellent condition of any of the fleet of Newman cine cameras to be hired from the London Photographic Centre. These are all checked by Shaw Jones, who as everyone knows is a first-class cameraman himself. Thus they are always in perfect order for the free lance cinematographer.

To have perfect confidence in the apparatus one uses is a sure step to better British pictures.

British Documentaries In America

News to hand via the Metropolitan Motion Picture Bulletin, published in New York, that Watler C. Gentlohn Inc., one of the leading American distributors of 16 m.m. films, has just contracted for the exclusive release of the Strand Film Company's films directed by Ruby Grierson, Hawes, Alexander and Spice. These include "Five Faces," "Fingers and Thumbs," "Duchy of Cornwall," "London Wakes Up," "Mites and Monsters," "Monkey into Man," "People in the Park," "Roottops of London," "Statue Parade," "Today we Live" and "Zoo Babies." This contract should bring many dollars across the Atlantic into the coffers of Strand Films, and allow more cash to be spent on the technicians, enabling them to make even bigger and better documentaries.

The Megger

Sound engineers and studio engineers-in-charge should be interested in two hand-books published by that famous electrical firm, Messrs. Evershed & Vignolls Ltd., Acton Lane Works, W.4. These are "A Pocket Book on Insulation Testing" and "Handbook on Continuity and Polarity Testing." Both books are very well illustrated by photos and diagrams, and give in simple language full instructions for carrying out electrical tests, and the use of the Megger Insulation Tester. As they say in the foreword "Breakdowns mean loss of output . . . the safety of electrical installations and apparatus depends chiefly on the condition of the insulation," and this pocket book explains how this condition can be ascertained by simple tests.

Bi-Linguals in Palestine

Jack Cotter, newsreel ace, just back from Palestine where he has been war filming for Movietonews, tells me how they obtain bi-lingual in local theatres. Down each side of the screen is another oblong screen. The films shown have French titles superimposed on them and down each side of the screen are titles in Hebrew and Arabic. These titles are handwritten on transparent film stock and are slowly wound by hand to the necessary cue-sheets. Thus three nationalities can enjoy the cinema.

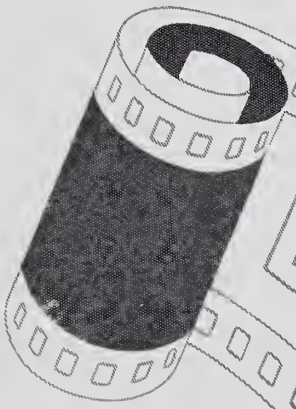
Jack has obtained a large amount of interesting footage during his tour of office in Palestine.

Tell This to Non-Unionists

A miner claimed, in the County Court, for wage advances which he said were due to him under an agreement between his local Miners' Association and the local Coalowners' Association. He admitted, however, that he was not a member of his Association.

The Judge told him that as he was not a member of the Union he was not covered by the agreement, and his claim could not succeed unless he could prove that there was an agreement between him and the coalowners under which he was to benefit by the agreement between the Miners' Association and the Coalowners' Association.

Non-Unionists should mark, learn, and digest.



A Brilliant Future

DUFAYCOLOR

For Twenty years the motion picture industry has waited for the ideal colour process — the single three-colour negative and single three-colour positive. In the last two years Dufaycolor Negative and Positive film has provided this long awaited need. The practical use of Dufaycolor film for every requirement in motion picture making technique has now been proved throughout the whole world. Dufaycolor is a British process of which every user can be justly proud.

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THREE NEW NEGATIVE FILMS

by I. D. WRATTEN, Technical Service, Kodak Ltd.

THE characteristics most essential for negative films to be used for motion picture purposes are not only those of high speed and fine grain, but also include exposure latitude and uniformity of product. All these requirements have been met in the production of the new films, which have been named Eastman Plus X, Eastman Super XX, and Eastman background X.

EASTMAN PLUS X

Eastman Plus X, code number 1231, is a new motion picture negative material for studio use. It is considerably faster than Eastman Super X, and has even finer grain, a combination which has previously been considered unobtainable. This new film with its higher speed and excellent exposure latitude will assist in reducing studio lighting problems, and is in every way a worthy successor to Eastman Super X.

EASTMAN SUPER XX

Eastman Super XX, code number 1232, is an extremely high speed negative material suitable for use under unfavourable lighting conditions. Actual night exteriors may be undertaken with confidence using this film. While its speed is considerably in excess of that obtained in Plus X, graininess has been kept at a satisfactorily low level.

EASTMAN BACKGROUND X

This material, code number 1230, is designed specially for negatives from which positives are to be made for background projection, and represents a considerable advance in both fineness of grain and speed when compared with Eastman Background Panchromatic, code number 1213, which it will replace.

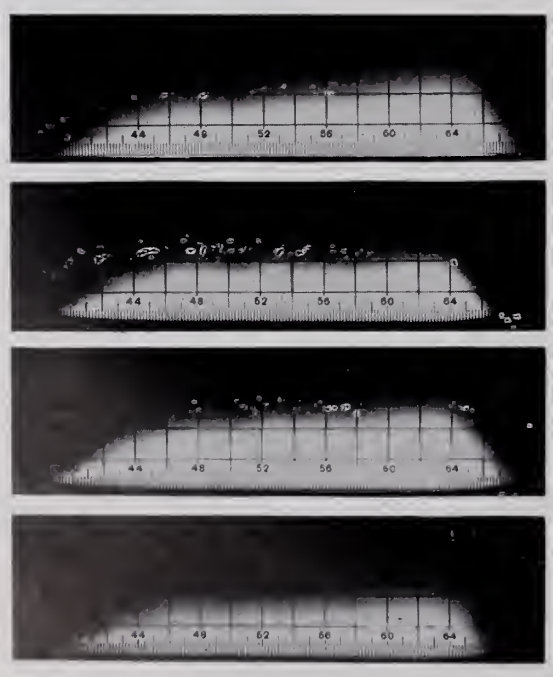


Figure 1

SPECTRAL SENSITIVITY

In spectral sensitivity, Eastman Plus X, Eastman Super XX, and Background X belong to the Eastman B classification, whereas Eastman Super X belongs to the C class. They have extremely high colour sensitiveness, corresponding approximately to the colour sensitiveness of the eye, and having somewhat greater green sensitivity than Super X. Wedge spectographs, shewn in **Figure 1**, illustrate the difference in spectral sensitivity existing between the three new films and Eastman Super X.

FILTER FACTORS

Filter factors to daylight for Plus X, Super XX, and Background X, are given in tabulated form in **Figure 2.**

Filter Factors.

	Eastman Super XX	
Filter	*Eastman Plus X*	*Background X*
Aero 1	1.25	1.25
Aero 2	1.5	1.5
3–N–5	4	4
5–N–5	5	5
G	3	3
23A	4	4
ND. 0.25	1.8	1.8
ND. 0.50	3.1	3.1

Figure 2.

DEVELOPMENT CHARACTERISTICS

The Time-gamma characteristics of the three new films are shown in **Figure 3.** It will be seen that the differences in development time to produce the recommended gamma value of 0.65 are expressed in terms of the percentage increase or decrease in time as compared with a well-known product, i.e., Eastman Super X. This is done in preference to quoting actual times, since while the differences in rates of development are reasonably consistent under widely differing machine and developer conditions, the actual times of development required for, say, Eastman Super X, vary considerably from laboratory to laboratory.

As will be seen by an examination of the curves, Eastman Plus X has very nearly the same rate of development as Eastman Super X, while Eastman Super XX requires approximately 50 per cent. longer development to attain a gamma value of 0.65. Eastman Background X requires about 20 per cent. less time than Eastman Super X to achieve the same gamma value.

SPEED

It is always difficult to reconcile speed numbers with the practical differences existing between picture negative products, but as an example of the relative speeds of these new products it may be stated that under average studio lighting conditions Eastman Plus X requires approximately one half, and Super XX only one quarter the amount of light normally employed where Eastman Super X is used, assuming that all three films are developed to similar gamma values.

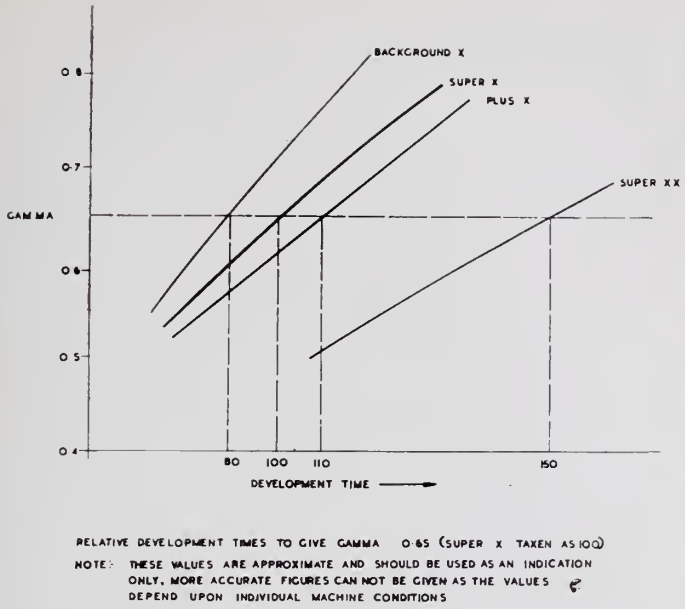


Figure 3

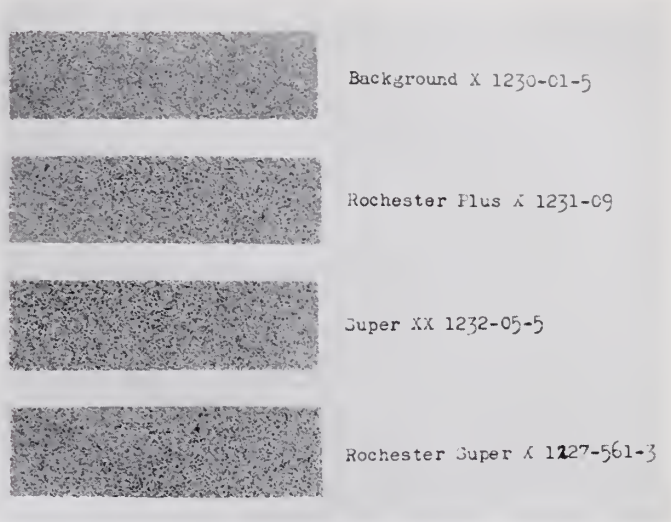


Figure 4

GRAININESS

An indication of the relative graininess of the three products as compared with Eastman Super X may be obtained by an inspection of the photomicrographs in **Figure 4.** As will be seen, the Eastman Background X has finer grain than the other products, and Eastman Plus X shews less grain than Eastman Super X, the latter being almost identical with Eastman Super XX.

SAFELIGHTS

Eastman Plus X, Super XX, and Background X film can be handled under the same type of Safelight (Wratten Series III.) as is used for Eastman Super X. Additional care should be taken, however, in view of the increased speeds of these films. It is recommended that safelight tests should be made using the new films, and if it is found necessary, a lamp of lower power should be substituted for the one normally used.

CODE INITIAL

In order to assist in the recognition of the film type either prior to or after development, an initial is printed just ahead of the main series of footage numbers on all Rochester negative products. As an example, in the visible footage number 23E F87718, the initial F indicates that the film is Eastman Super X.

The code initials for the three products are as follows :—

G = Eastman Plus X
H = Eastman Super XX
B = Eastman Background X

DEVELOPER

The following formula is recommended for the development of Eastman Plus X, Super XX and Background X.

Elon (Metol)	2.0	*grams*
Hydroquinone	5.0	,,
Sodium Sulphite (Anhydrous)	100.0	,,
Borax	2.0	,,
Water to make	1.0	*litre*

WILLIAM HICKEY ON THE FILM SLUMP

In a recent issue of the " Daily Express " William Hickey, the well-known columnist, drew attention to the continued depression in the film industry, and said :

" It is hard for the technicians, who are highly-skilled in their own jobs, only less adaptable than actors ; those of them who are cameramen often have to sell or pawn their expensive cameras. I met some of them yesterday round Wardour-street. Their temper was fairly—but not altogether resigned, sardonic, less bitter than it might be. One I talked to is a cutter of films ; he has had three weeks' work in the last year. One disadvantage of such unemployment is that film technique advances rapidly. The jobless get out of touch. They would like at least to go and see as many films as possible to study what is being done ; ironically, the men who make films are the only people who find it difficult to get into trade-shows. If this great industry, which has wasted so many millions, can't find these men work, it might at least enable them to keep their skill from rusting. They blame the Films Act. They want the number of quota films increased. They blame the policy which imported hundreds of technicians who claimed to have been big noises in Hollywood or Central Europe (though men of Erich Pommer's calibre were welcome). Mostly they don't blame anybody, they just hang around Soho telling jokes about the incredible Hogwasch stupidity of some film executives."

In mentioning the difficulty film technicians have in seeing British films, we feel Mr. Hickey has done a service to technicians, and we hope that his paragraphs will result in the present anomaly being remedied. Already Charles F. Higham Ltd. has responded and sends to the A.C.T. office a substantial supply of tickets for Gaumont-British press shows. Unemployed members may obtain them from the A.C.T. offices.

MAN WITH A MOVIE CAMERA

By **Freddie Ford**

If a disinterested person were to investigate the various ways in which cameramen have entered their particular niche in the industry, I fancy that he would find there were as many ways as there are cameramen. In my own particular case I arrived at the job I am now doing by actually being a cameraman. Topsy-turvy, but quite true. After returning from South Africa where I had been in charge of a studio handling both the photographing and process work for Kinemas' Ltd., I worked my way round the smaller studios on "quickies" eventually landing a job with G.B. where I photographed several films over a period of two years. In major films, the big producers were bringing over from America and the continent ace men, whose names were fairly well known, and without casting any doubts on their actual merits, they were freezing out the native worker. I was one of that bunch of native workers who saw before him very little opportunity for advancement for a long time to come. Indeed with the influx of new blood into the industry my eventual chances were becoming less and less. Any good operator could light a quickie, and if, in say a year's time, my own operator was going to be as good as me, then it put one more cameraman on the market, and still further lessened my chances. I decided that if a job came along that was going to give me something more interesting to do than just the lighting of quotas, I would take it.

In time I went to London Film Productions to do some shorts for them, and while on this job I was given the opportunity to do a background shot for "The Ghost Goes West." I was only too glad to do it, and was given my instructions by Ned Mann, who at that time was in charge of the special effects department. The shot was apparently just what they required; I was given other work to do for them, and it has resulted in my becoming a member of the "special effects." I went on to do other jobs, as operator, on "Things to Come" and "Miracle Man," and it did not take long for me to realise that this department of trick photography was what I had been looking for. It was a job for a man who wanted to specialise; it was something that was so well run, and where things were so well worked out that it was a little world on its own. I had to start again as an operator, but this time I saw signs that it might lead to something better than lighting cheap quotas. Every major studio in the country might eventually have a special trick photography department, and meantime I was getting in on the ground floor.

One of the earliest shots I had to do was a shot of waves, taken from the bows of a cross-channel steamer. That shot taught me one of my first essentials. I had had the camera tied down in the usual way, just for steadiness, but I had not got it jacked up. When the shot was screened I was asked if the boat had been particularly rocky or vibrating on the trip. I couldn't remember that it had been. I thought the shot was as good as anything I had done before, but the department were not entirely satisfied. I told them what I had done, and when I told them I had not had the camera jacked up I learned their keyword—steadiness. Not just fair steadiness, not even more than average steadiness, but *rock steadiness*. When you have to put several different shots together to form one composite whole, as we so frequently have, if only one of the shots has a waver on it the whole effect is lost. Instead of making a shot that is convincing and natural, you get one that smells of the trick department and looks phoney from the first frame. Here thanks must be given to our camera mechanics who play an important part in maintaining our cameras and equipment.

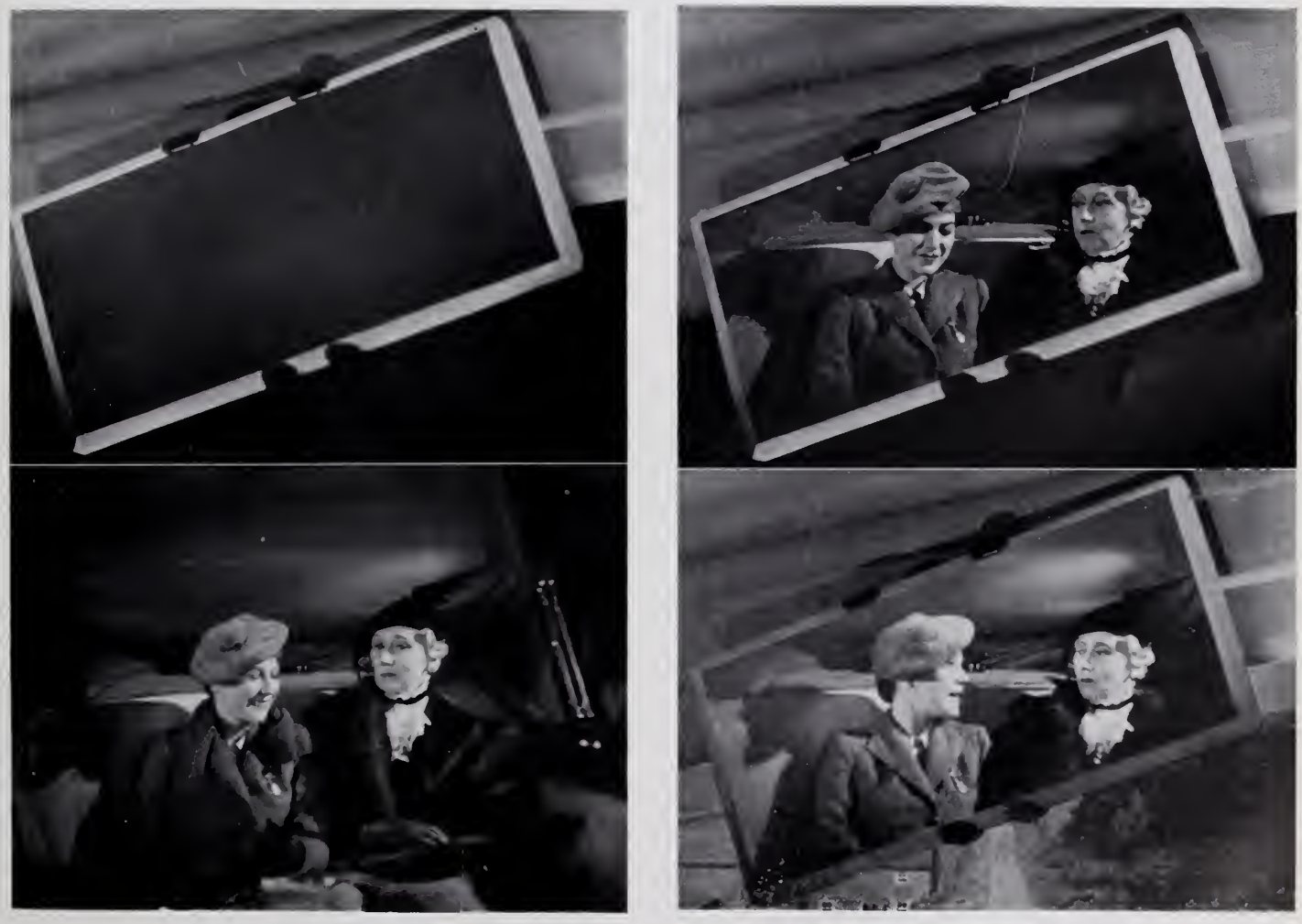
My earliest training included such things as shooting on miniatures. Some of these shots are of quite conventional simplicity, like one of the harbour of New York where we cranked at four times normal speed to get a realistic wave motion on the water and to get the boats which were pulled by strings to move easily and without jerking. Another was an aeroplane shot done against a neutral grey backing. The backing itself was lit only by leak light, but the area of action of the planes was fully illuminated, top, bottom, and sides. The reason for the grey backing was that the clouds were made against this by spraying titanium chloride into the air. It forms quite realistic cloud effects, but care has to be taken to see that the air conditions in the studio remain

Optical printing will improve this —— by adding these

constant in order that the clouds may always behave in the same way. This effect was done by the present head of the department, Lawrence Butler, who had the gas belched out of special guns so that it just hung where wanted. Every now and then the whole studio had to be cleared of the fumes when a new take had to be done. Another shot was one of the dropping of parachutes, done with little silk parachutes and plaster models dropped from the studio roof.

I could go on giving countless examples of the sort of special forms of trick photography that we do every day, but most of the processes are known in one form or another to most cameramen. The big thing that we have tried to do here is to do our work better and with more attention to every detail of the process than it gets in the majority of studios in this country. I cannot let you into any secrets, because there really are none that you do not already know. The majority of our work is confined to backgrounds and the shooting of back projection shots, shooting of miniatures, and in my own particular case the shooting of all the stages of composite shots that are eventually put together on the optical printer. Optical printing of special shots is also part of our department, and we also have our own little laboratory, for there are many differences in grading, density, contrast of print, and so forth that we require that is best done by ourselves rather than by the ordinary lab. Tom Howard, our optical printer, is one of the best men at his job in the country, and has done some really outstanding work in this department, for which, had he been of any other nationality than just plain English, he would have got a lot of publicity long ago. As it is he goes steadily on with his job, calm, efficient, and painstaking, only hoping that the job he does adds something of value to the film it goes into. Indeed, the same may be said for the whole of the department.

As I spoke of backgrounds I may as well tell you our own way of making these. We don't just set up a camera and shoot, then stick the artists in front of it and rephotograph. First we find out from the director how big the artists are going to be in the final action, close, mid, three-quarter, or full figure. On the shooting of the plate we send the assistant out into the foreground so that we can line up on the subject as it will eventually be seen. We take a few feet with the assistant in position, to let the director get a line up when he sees it screened, and then shoot the plate, with all the usual provisos as to steadiness, and taking care that there is no object in front of the camera less than 25 feet away. We then make the special shooting prints ourselves, as we are best able to judge what degree of contrast will be required in the final set-up. For less important or moving backgrounds the continuous printer is quite good enough, but for work requiring more contrast or for static backgrounds we use either the step printer or the optical, the latter giving the greater degree of both steadiness and contrast. We



Four stages of trick shot for "Spy in Black"

frequently also advise on the lighting of the set-up in the studio, though that is not specifically our job. The projector is fitted with Bell and Howell gate movement, of course, and the plate is printed with B. and H. sprocket holes, and Mitchell cameras only for shooting.

The same degree of care is exercised with a moving background in shooting as with static ones. The camera is tied down solid with chains and tackle to achieve the utmost smoothness. Any extra movement other than the movement required is distracting, and to see, say, a country road jumping up and down through the rear window of a car makes the shot look less real than it need be. If you get a plate that is not jerky enough for your liking there are always ways and means of getting the effect on the shooting of the final scene without altering the background, or failing to take care to shoot the plate as smoothly as you can in the first instance.

Back projection for "The Citadel"

Animation and stop-motion shots also take up quite a lot of our time. They have the advantage, in shots such as tracking from a large map up to a particular town, of achieving fair accuracy in one take. You can track from as far as 15 feet up to one foot with dead accurate focus and movement without any real trouble at all. We had much work of this sort to do on "The Challenge," which was full of map shots and one-turn-one-picture shots. They were tricky without being extraordinarily difficult, and were certainly effective.

Finally, I have included here stills of only one or two of our recent shots, which give quite good illustrations of our ordinary day-to-day jobs. One is a back projection test for "The Citadel." The special effects department makes the plate and prints it, and then makes the first test, which in this case included some of the boys on the floor, where Robert Donat and Rosalind Russell were afterwards photographed. Only after he has seen the result of the test does the director shoot. Another is a shot taken in two parts for "Q Planes." One is a miniature of a boat with a plane alongside. The backing against which this shot was photographed was not sufficiently pictorial, so we took the second shot of sky and clouds, taking care to have them well in the top of the frame. Howard then put the two shots together on the optical printer.

The third was really a five-way shot for "Spy In Black," though only four of the stages are shown here.

(Continued at foot of next column)

SCHOLARSHIPS TO RUSKIN COLLEGE, OXFORD

The Trades Union Congress General Council have decided to continue their scheme for the provision of full-time residential scholarships tenable at Ruskin College, Oxford. These scholarships are open to men and women members of affiliated unions between the ages of 20 and 35 years.

For the academic year 1939-40 four scholarships will be awarded. Each scholarship will be tenable for one year, and will be renewable for a second year if the reports received on the student during the first year are satisfactory.

During the first year of residence a grant of £150 will be made to each student, and this grant will cover fees, board and lodging, and a partial sum for the personal expenses of the student. It is estimated that in addition a further sum of approximately £25 per student will be necessary to meet the total cost of the first year.

Where scholarships are renewed for a second year a grant of £75 will be made by the T.U.C. and the award of the scholarship will be conditional on the student finding sufficient additional assistance from other sources to enable him to remain at Ruskin College for the second year.

All candidates will sit for a written examination (which will take place in various centres throughout the country) and the awards will be made by the General Council on the basis of the examination results, plus evidence of attendance at evening classes and of activity in local trade union affairs.

Copies of the form on which application must be made can be obtained from: H. V. Tewson, Assistant Secretary, Trades Union Congress General Council, Transport House, Smith Square, London, S.W.1.

* * *

ACTORS FOR PEACE.

Robert Donat, Leslie Banks, John Gielgud, and Emlyn Williams are among those who sign a letter, under the auspices of the National Peace Council, appealing for signatures to a petition "to mobilise public opinion in favour of a determined approach to the problem of peace." The main objectives of the petition are described as "large-scale measure of economic reconstruction; a solution of the Colonial problem, recognising the paramount interest of the native peoples; and, ultimately, a limitation and reduction of armaments."

Petition forms and other material can be obtained from the National Peace Council at 39, Victoria Street, London, S.W.1.

MAN WITH A MOVIE CAMERA

(Continued from previous column)

The shot of the driving mirror is a genuine miniature, simply shot direct. A frame of this is carefully cut out and placed in the camera to see where to put the artists so as to get them into the right position, remembering that they have to be placed on the opposite sides to their position in a straight shot, and have to do all their actions left-handed. This scene is then shot direct and optically printed into the miror. Finally a background plate is shot and placed in the vacant bottom part of the frame, to give the final composite shot.

As a last word I might add that more of these shots would be possible were it not for careful preparation and forethought, and if the shooting schedule is clear for any one day then that time is occupied in testing or preparing for that "missing scene" which the department will next have to manufacture.

A very Happy New Year to all A.C.T. Members and best wishes for a renewed and continued prosperity in the Film Industry.

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CIVIL LIBERTY

THE National Council for Civil Liberties was born in 1934 as a result of the agitation against what is often known as the Sedition Bill but what is more correctly called the Incitement to Disaffection Act. The Bill, as introduced, violated numerous principles of English law and provoked an outcry among even Conservative lawyers. Important modifications were made during its passage through Parliament but it is still a menace to freedom and a threat to peace propaganda. Under this Act it is an offence to be in possession of a document with intent to seduce or endeavour to seduce any member of the armed forces of the Crown from his duty or allegiance, if the document is of such a nature that its distribution among the armed forces would amount to an offence. It is not difficult to imagine a Bench of lay Magistrates being very easily persuaded in a time of crisis that a person charged before them with being in possession of anti-war pamphlets had a criminal intent, especially if he held views which they disliked.

Since 1934 the work of the National Council has extended greatly and its concern has been to defend existing civil liberties against any encroachments by the Government, Law Courts, Companies and so on. Every Monday night at the Council's offices persons who think that their civil liberties have been infringed can attend and be given free legal advice by the Council's lawyers. If the case is suitable the applicant is provided with a barrister and solicitor to conduct his case in Court. The most frequent cases are allegations of misuse or the arbitrary exercise by the police of their powers. Constantly from the East End of London come cases where the police have closed down an anti-Fascist meeting in order to allow a Fascist meeting to be held. Other cases concern the arrest of interrupters at Fascist meetings where the interrupter has been reasonably provoked by the abuse proceeding from the platform. The fate of these cases before a Magistrate may be judged from the following case which was heard in the North London Police Court. A law-abiding Jewish citizen had been cruelly beaten up by a Blackshirt. He was removed to hospital and detained. Two doctors gave evidence that the wound was caused by a metal bar or other sharp instrument causing grievance bodily harm. The young Blackshirt accused was merely bound over by the Magistrate.

An investigation was made by the Council's Secretary into the conduct of the Police during the Harworth Colliery strike in March, 1937, and it was shown that the police misused their powers in many ways. The section of the Public Order Act, 1936, which deals with the offence of insulting words and behaviour likely to lead to a breach of the public peace was used in this dispute for the first time. Although Parliament had been assured that the Public Order Act was intended to be used against the Fascists, it was used on this occasion against the strikers.

The Council is in close touch with similar Societies in the Dominions, India, America and elsewhere, and has carried out an investigation into the tyranny that is in force in Northern Ireland. The Attorney-General of Northern Ireland has said that England often follows the example of Northern Ireland. On that account the Council's full report is worth reading in order to see in action, so near to England, a state which is Fascist to all intents and purposes. Reference can only be made here to one or two of the powers of this Government. There is power to detain a person in prison for an indefinite period without charge or trial. The punishment of death can be inflicted for offences relating to the possession and use of explosives. The Authorities of Northern Ireland can refuse to allow a person who is indefinitely detained to receive his legal advisers, and they can forbid all correspondence and visits from friends or relations. Is this not reminiscent of the conditions of German Concertration Camps?

Members of the Association of Cine-Technicians may be particularly interested in the Council's work to protect non-inflammable or sub-standard films from censorship. The Government and certain sections of the Cinema trade have for a long time desired to bring sub-standard films under a censorship. At the moment it is generally considered that these films, being non-inflammable, are not subject to the provisions of the Cinematograph Act, 1909, and consequently many political films which are banned by the British Board of Film Censors are freely shown all over the country in small halls. From time to time, during the past five years, attempts have been made to bring these films within the ordinary censorship. These attempts culminated in the prosecution of a Durham Miners' lodge for showing a Russian film. The Home Office expert proved in Court that the sub-standard film would actually burn while it was placed in a flame, but the Magistrates did not consider that this made it an inflammable film and dismissed the case. Recently the Surrey County Council made regulations to control the exhibition of non-inflammable films and have laid down restrictive conditions as to the type of film that may be shown. These regulations purport to be made under the 1909 Act but are probably invalid. A Home Office Committee is now sitting to decide whether non-inflammable films shall be definitely brought within the scope of the 1909 Act. The Council is submitting evidence to this Committee and it is hoped that it will be possible to prevent any extension of control over this type of film. It is obvious that education and political liberty will be unnecessarily interfered with if any general control of these films is established.

The Council is working to get the Official Secrets Acts amended but it is not possible in a short article to deal with this or its many other activities.

The National Council for Civil Liberties is strictly non-party and its work is becoming more voluminous and its need of help, financially and otherwise, grows as the attacks on liberty increase.

The Association of Cine-Technicians has now affiliated to the National Council for Civil Liberties and I hope that many of the members will join individually as well and also buy the Council's literature.* Knowledge of the attacks that are being made on liberty is necessary before one can take political action to frustrate them. In the last four years these attacks have greatly increased. Now is the time to assist in defending liberty while we are still free to do it.

R. S. W. POLLARD.

**Obtainable from the National Council for Civil Liberties, Morley House, 320, Regent Street, W.1.*

LESSONS FROM "MEN WITH WINGS"

Telling the story of man's conquest of the air from the first flight by the Wright Brothers at Kitty Hawk in 1903 to the making of super-speed bombers to-day, this aviation picture, the first to be shot entirely in Technicolor, offers many lessons to the cine technician. The most important, I think, is that such a heavy piece of apparatus as the Technicolor camera could be used to obtain such mobile results. The flying by members of the Black Cat Club, the stunt flyers who worked on "Men With Wings," has been brilliantly photographed. Our illustrations show the elaborate camera set-up used. In *One* we see the camera fitted on top of the machine's wing, and the method of bracing it. This camera was used to colour-film the stunts and was operated by remote control by the pilot. In *Two* the camera is mounted on a gun ring and is operated by the cameraman. This was used to film the formation flights shown in the film. This camera fit-up should be of great help to any British firm contemplating aero pictures. A special rostrum was constructed at each side of the machines to allow the operators and assistants to load and fix the cameras easily without being cramped or damaging the planes' fabric. The film contains some very fine photography and the colour scene of Ranson's crashing on his first flight and being burned to death, was in my opinion one of the most effectively horrible scenes the screen has shown us—but then I had seen this happen in real life, and the memory always haunts me. By the way, Ray Milland, one of the stars in this film, is British—just another one who has made good. From King's College, London, trained horses, rode in Grand National, seaman. Household Cavalry, film off-set marksman. Spent Christmas home and was dined by his old troop at Albany Street Barracks.

Before the War I filmed many of the early flights in machines constructed from bamboo curtain poles and driven by home made propellors and motor cycle engines. Those early flights nearly always ended in a crash and then came hungry days for the pilots while cash was procured to patch up the machine! This leads me to a very important lesson to be learned from this film—in "Men With Wings" the early flights and the record breaking attempts are illustrated by means of static titles

Figure 1

Figure 2

which are supposed to give the necessary montage impression of the progress of aviation. These titles are just a shock to the viewer's cinematic mind. Topical films of all these events are available, but have presumably not been used because they are black and white. If these scenes had been used and tone-tinted they would have fitted inconspicuously into the Technicolor shots, and would have greatly added to the drama of the film, or they could have been stencilled in Pathé-colour. I am sure the reasonable use of these two processes would be of great help in Technicolor films that have to use old pictures for flash-backs. Anyway, technicians should see this very thrilling film with its first colour flying sequences.

At the premiere at the Carlton Theatre were many distinguished people, including Lord Mountbatten who did so much to introduce films to the Royal Navy; Mr. Joseph Kennedy, the American Ambassador, who was at one time Pathé chief in America; Leslie Burgin, Minister of Transport, very much interested in film affairs; Lt. Col. Moore-Brabazon, the first licenced pilot in England and a director of Kodak's; Claude Graham White and Sir Alan Cobham, who both have piloted many cameramen.

K.G.

* * *

AMONG THE AMATEURS

Interest in colour is making steady progress among amateur groups. The Plymouth Institution Photographic Section had a lecture on December 12th on the Dufay Process by Mr. George H. Sewell of Dufay-Chromex, and another lecture and demonstration is arranged for February 12th on the Kodachrome Process.

The Manchester and Salford Film Society has already shown four programmes this season, featuring "Extase," "La Belle Equipe," "Underworld," and "The Last Night." Features for the spring season will be chosen from "The World is Ours" (Czech), "Janitzio" (Mexico), "Carnet du Bal," "Orage," "Gribouille" and "Amphytrion" (France), "Der Schimmelreiter" (Germany), "Son of Mongolia" and "The Thirteen" (U.S.S.R.).

LAB TOPICS

LABORATORIES IN INDIA

A recent issue of "*filmindia*" draws attention to the Factories Acts which regulate working conditions in the British laboratories and states that something of a similar nature is badly required for film workers in India. They continue: "As matters stand to-day our film workers happen to be the most unfortunate lot of people we can ever find, struggling for a living. The present trade depression has compelled the studio executives in India to carry out heavy retrenchments in our army of film workers, with the result that the present people who are employed are putting in excessive work, for which they get normal wages. And the conditions under which they actually work are not heavenly in any case. The film laboratories in India, with the exception of a few, are no better than birth homes of disease and ill-health.

" While everyone admits that the health of the laboratory workers should be the consideration of all producers, the economical conditions do not permit the producers to introduce radical changes for the better. However, a lot can be done if the producers intend to put some human element in their business by providing to the workers more rest and changing conditions suitably to make the laboratories more comfortable for work.

"A visit to one of these laboratories would bring home forcibly the necessity of installing air conditioning plants and introducing up-to-date ventilation.

" Let us consider the fumes in the different parts of a film laboratory. Taking the cleaning department, where methylated spirit is used, the air is so stagnant with the fumes of this particular spirit that one can hardly breathe with comfort.

" The developing rooms where the tanks are cleaned with profuse use of hydrochloric acid, are full of choking fumes, which must in the long run cause a sorry effect on the health of the workers. And to all these fumes, add the bad ventilation and the necessary darkness which we find in our laboratories, and you can well imagine the conditions under which our laboratory workers actually work.

" In foreign countries, Governments are taking serious notice of these affairs, but not so on our side. Something must be done, and that too urgently, to improve the lot of our studio workers by bringing new changes in our Factories' Act. The first and foremost thing that compels attention is to equip every laboratory with an air conditioning plant. This item at least must be made compulsory by an official regulation."

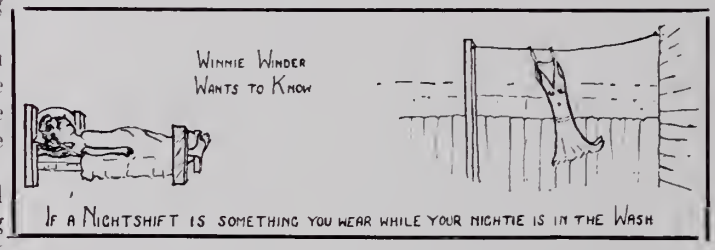
OLYMPIC DINNER AND DANCE

A year ago our General Secretary attended the annual Dinner and Dance of the Olympic Sports and Social Club and was promptly away ill for the next two months. This year the Committee forgot the past and invited him again, and so far he appears to have safely survived.

A large number of the staff attended, together with Mr. J. G. Skittrell, head of the firm, and distinguished visitors, such as Mr. Wratten, of Kodak Ltd., from business associates of the Company. It was also pleasing to see visitors from other laboratories present. The whole evening went with a swing, and great credit is due to the Hon. Secretary, Mr. D. D. Milne, who organised the function. The speeches were as speeches should be but seldom are at a function of this nature, and five speakers between them occupied a total speaking time of exactly 6½ minutes. Such functions serve a very useful purpose by bringing persons from different sections of the industry together periodically.

LAB SOCIAL CLUB

Nemo tells us: The object of the Laboratory Social Club is probably known to most, but for the benefit of those who have forgotten or are unenlightened, a few brief words may not seem misplaced. After the formation of a Laboratory Section in the Association, it was felt by some that opportunities should be provided for social gatherings; many members during their A.C.T. activities had had opportunities of forming new acquaintances, perhaps not always in congenial circumstances; arguing over principles and divergent political schisms does not tend to produce a carefree atmosphere for fraternising, and so the Social Section was formed, and those of you who have attended any of the functions will agree that it has justified its existence. It is a curious thing, the amount of real hard work necessary for giving people an enjoyable evening. You all know the old saw "Many hands make light work"—it may not be literally correct



but you know what I mean. Well, what about it? If you knew the amount of time and energy used by your social representatives you would be amazed. And, look you! Apart from their ordinary service there is a social evening to plan and scheme for—when?

JANUARY 20th, 1939

Now here's a chance for any budding (or blooming) musician, crooner, impersonator, juggler, sword-swallower or double act, who consider that they should be among Carol Levis's discoveries, to make a name for themselves. Don't sent a postcard. Simply let your social representative know the type of entertainer you are. Amateur dance bandsmen are especially welcome.

The Social is being held at the G.P. Restaurant, Wardour Street, W.1, where we shall be able to do the Lambeth Walk. Unfortunately larger accommodation would mean greater expense, and bearing in mind the super outing the Committee are planning for June 25th, a small charge of ninepence is being made for the refreshments, which will be in the form of a running buffet.

So cut your smoking down and reserve your wind. When you arrive at the "place de concorde" come out of your shell, drop your reserve, put your best foot forward, and have a scrumptious time.

And now, folks, an apology. The Committee would like to express their sincere regret to those who failed to enjoy themselves at the Dance held at the Paramount, due chiefly to the excessive overcrowding. Both the Committee and the Paramount management were unprepared and genuinely surprised at the large numbers of outsiders attending. A lesson has been learned and the Committee will do their utmost to make amends when the next Dance is held.

The Football Competition has met with a grand response, but our Social Secretary tells me that there are hundreds of unsold tickets each week. Well, that won't do! The number of I.O.U.'s have been increased and a free ticket given with every dozen as an extra incentive to sellers, so if you are only selling one or two, take a dozen to sell and profit by the free gift. It *might* win. Besides, if every laboratory member (and friends) comes to the outing, we shall need some dough to ensure that the all-in cost is low. So put your backs to the wall, stand shoulder to shoulder, keep your powder dry, and let not a ticket go unsold.

STOP PRESS: Watch out for the next issue for details concerning the outing, especially if you've never seen the sea.

EMPLOYER'S TRIBUTE

Colonel Sir Reginald Dorman-Smith, M.P., in a letter to the chairman of a meeting called to discuss the benefits of Trade Unionism, wrote:—

"I believe that the work of Trade Unions in the field of industry has deserved, and should receive, the support of the workers and encouragement from employers.

"I am convinced that an ever-increasing number of employers realise the value of Trade Unions as informed responsible bodies, and that if industrial matters are to be dealt with on the facts they are wise to deal with those who have a definite stake in the industry.

"As far as the workers are concerned it seems to me that there can be no doubt whatever but that the Trade Union Movement has been of inestimable benefit to them.

"I would like to say this: in every walk of life there are people who are apt to accept any benefits which may be obtained for them without feeling under any obligation to contribute to those organisations which are working on their behalf.

"That simply does not seem to me to be 'playing cricket.'"

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Western Electric Progress

Continued technical progress during 1938 is reported by Western Electric.

On the exhibition side it is estimated that nearly two and one-half million seats in Great Britain are in theatres equipped with Western Electric sound.

From abroad it is reported that Mirrophonic sound was making strong headway, particularly in India and Australia, where whole chains are installing the new system, as rapidly as equipment can be supplied. On the Continent and in Africa there is steady progress with new installations in an increasing number of theatres.

RECORDING AND TECHNICAL DEVELOPMENTS.

During the summer Mr. E. M. Hall, technical director of the company, made an extensive tour of the American laboratories and studios. During this he reviewed current equipment developments in both the reproducing and recording fields.

While in Hollywood Mr. Hall visited several of the major Western Electric equipped studios and conferred with ERPI'S engineering staff on the coast to obtain detailed information on all new recording developments, so that this data would be equally available to the Western Electric equipped studios in England and on the Continent.

Mr. Hall states that "ERPI is devoting an increasing amount of time to research and development of new techniques and the study of fundamental methods in the sound picture field. Parallel with these studies ERPI has developed several new and improved instruments and methods for determining conveniently the degree of perfection obtained in the laying down of a modern sound track."

Instruments have been designed capable of giving studio engineers a quick and accurate check on the "quality" factors of modulation and density in motion picture film production. These instruments include the inter-modulation oscillator and the electric densitometer.

Mr. Hall reports that "ERPI has recently been called upon by two of the major producers in Hollywood to undertake a complete study of their existing recording plant and their present methods of sound technique with a view to extensive modifications and additions of new equipment which, it is claimed, will provide those particular studios with the greatest facilities for the production of modern motion pictures in the world."

THIS MEANS YOU!

Are YOU concerned with what is happening in the world to-day?

Do YOU realise how it affects YOU as a film technician?

Why not join the FILM GROUP of the Left Book Club?

Send for particulars of lectures and discussions to the Hon. Secretary:

MISS ELIZABETH COXHEAD,
8, LLOYD SQUARE,
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B.F.I. REPORT

The Fifth Annual Report (July 1937-June 1938) of the British Film Institute records a year of full and varied activity. The National Film Library, following a reorganisation of its Management Committee, received a special grant of £3,000 from the Privy Council for the consolidation and extension of its preservation section, a task already begun by the addition of 247 films to the 443 previously acquired. Forty-eight new items, from Méliès to this year's productions, have been added to the Loan Section, and a history of the cartoon film constructed—"Drawings that walk and talk" (seen by A.C.T. members on December 1st). A similar film on Charles Chaplin has been prepared. An International Federation of Film Archives has now been set up, co-ordinating national bodies in London, Paris, New York and Berlin. The Dominions and Colonies Panel of the Institute has made a report on the Machinery for Educational Distribution within the British Empire and co-operated in this scheme for imperial free trade in educational films. International free trade, however, has been held up since the co-ordinating body, the International Institute of Educational Cinematography at Rome, closed its doors on January 1st, 1938, when Italy left the League.

Much of the B.F.I.'s effort is devoted to the educational use of the cinema. Suggestions have been made for both distribution and production of films on physical training, and local conferences of Education Committees held. The number of projectors in use in schools has risen from 916 to 1,490—and 420 new films have been issued. The B.F.I. has helped in the running of "Film Schools," given lectures to educational bodies, and co-operated closely with the Central Council for School Broadcasting. The Subject Committees have reported on the problems of their particular sphere, and regularly reviewed current productions in the *Monthly Film Bulletin*. The latter publication also reviewed 713 out of some 778 fictional feature films released in an effort to encourage film appreciation among all those who patronise the cinema. A pamphlet on this subject has also been commissioned. This task is further being approached through the medium of education by co-operation with local educational film associations and the film institute societies, national social organisations, and the Social Questions Commission of the League of Nations. An indication of the scope of the Institute's work is given by the fact that its information section received 2,500 enquiries from individuals and organisations during the year, while its Technical Director was invited to join two of the British Standards Institution's Committees.

The widening of the sphere of the Institute's operations has necessitated various constitutional changes. The Governing Body and the Advisory Council now contain representatives of the K.R.S., the C.E.A., the F.B.I. Film Group and many other bodies, but not, we note with regret, any representatives of those who *make* films—the technicians. Similarly the section of the report on General Tendencies limits its comments on the Quota Act to the remark that whatever its shortcomings may be in the eyes of the various branches of the trade, exhibitors, renters and producers alike are benefiting by the ending of that long period of uncertainty about the future which preceded its passing into law—a statement that reads rather bitterly to the 80% of technicians who are unemployed after years of working to make British films.

(Continued at foot of next column)

WHEN FILM STUDIOS BURN

Professor Haldane on the Next War

Although an enemy could not hope to win the war by setting film studios alight, experience in Spain has shown that an air-raiding enemy frequently sends over preliminary 'planes by daylight to start fires in large, ramshackle buildings in the suburbs of big towns (and most film studios correspond to this description); the fires, which cannot be extinguished before nightfall, then serve as flares to guide the main fleet of enemy planes, arriving by night. Something should be done to make film studios considerably less inflammable.

This statement was made by Professor Haldane at the inaugural meeting of the Left Book Club Film Group held last month at the Trade Union Club, with Mr. Sidney Bernstein in the chair. The meeting heard a witty and penetrating address on A.R.P., a subject of considerable interest to A.C.T. members. Professor Haldane claimed that it is perfectly possible to give everyone protection against every type of bomb, but that the great mass of people in this country had no really adequate protection. While not disparaging the distribution of gas masks, he was of the opinion that the real danger lay in the high explosive bomb. In many towns in Spain, he said, bomb proof shelters had been provided for everyone, but scarcely any had been built in Britain. He estimated that underground protection could be given to the population of Great Britain at a cost of about £10 per person. In this connection he claimed to have lost the Walsall by-election for the Labour candidate. He made a speech there in which he pointed out that the cost of burying a person is about £10, and that he would prefer the £10 to be spent before rather than after he was dead. Unfortunately he discovered too late that his chairman was the local undertaker!

In the lively discussion which followed his speech it was stated that no studios or laboratories had anything like adequate protection for their employees at the time of the recent crisis, and most had done nothing at all. One had even removed film from fireproof laboratories into open wooden sheds. Professor Haldane urged the organisation of the film trade to press for adequate protection for its workers, instancing the successes in this direction already scored by other unions such as the aircraft workers, and pointing out that shelters under sixty feet of alternate layers of earth and concrete are the only real protection against quarter-ton bombs. With 2,000,000 workers waiting for something to do, and the crying need of our crowded cities for underground parking space, the building of such shelters would serve two objects at once.

The Film Group hopes to hold monthly meetings at which similar subjects of special interest to film workers will be discussed; future lecturers include "Vigilantes," the former League of Nations official, Jean Renoir, Thorold Dickinson, and Edgar Anstey. Anyone interested will be welcome, and can get notification of future meetings by sending his name and address to the Hon. Secretary, Elizabeth Coxhead, 8, Lloyd Square, W.C.1.

B.F.I. REPORT

(*Continued from previous page*)

For all its good work, the Institute must surely, if it is to live up to the first two words of its name, take more cognisance of the state of the studios and their staffs. Only from a healthy British film industry can it continue to gain real life and strength.

LEAGUE OF NATIONS JURY DECIDES FOR EXPERIENCED FILM MAKERS

Some time ago, "*The Cine-Technician*" announced a competition, held by the League of Nations, for a scenario. On September 7th the jury of five (including Mr. Neville Kearney, a Governor of the British Film Institute) issued their report. The scenarios, submitted by 24 authors, were divided into two categories—those dealing with the general principles and activity of the League and those dealing with some special branch or aspect of League work. In both classes only one script was accepted and no first prize was awarded. In the first section a prize of 500 Swiss francs was awarded to Mr. Roger Dessort of Nice (France) and in the second section a prize of 200 Swiss francs to Mr. Francois Schembry of Rakat (Morocco).

In general the jury found in the scripts submitted a divorce between knowledge of film technique and knowledge of the League of Nations. They unanimously recommended that, in view of the importance of the cinema as a means of publicising the League's principles and activities, the Secretariat should enlist the services of experienced film authors. With reference to the big general film, the jury stressed that considerations of cost should not be allowed to stand in the way of the best possible production while, with the smaller films on particular subjects, it should be possible to combine technical information with a quality equal to modern documentary standards.

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CORRESPONDENCE

Sirs,

I enclose a cutting from the *Daily Express* of December 11th for your amazement.

FILM PLEA TO FLEET STREET

By PAUL HOLT

The Cinematograph Exhibitors' Association say in a statement they issued yesterday:—

THERE is a film shortage, and a serious one. From July 1 to September 30 last year there were registered 147 foreign feature films and fifty-three British.

But in the last quarter to date of this year . . . there were only registered 103 foreign features and twenty-one British.

Those thirty-two British film unmade this year would have kept in employment for at least two months 16,000 *British workmen, actors, technicians.*

The City has had a bad scare. The result of that scare is making it shut its eyes to the fact that there is a big market of film consumers not only needing but demanding supplies.

BIG MARKET WAITS

For some time the *Daily Express* has been notable for its policy—laid down, we feel, by shrewd Lord Beaverbrook—of optimism, and its encouragement of the public to employ, buy and spend.

The situation is quite simple. There is a very big market—some 5,000 picture theatres—waiting for, demanding, the product it consumes. Where there is a demand it is to the advantage of finance to supply it.

Will not Fleet-street, not just for the sake of the cinema owner or any other part of the film industry, but for the sake of better business generally, start telling the City this?

And keep on till this plain fact is understood.

May I remind you that it is just a year since our worthy General Secretary almost caught his death of cold (and despair) in a draughty Committee Room of the House of Commons, listening to the arguments of Mr. H. G. Williams, and other champions of the exhibitors' interests, against any increase in the Film Quota or any attempt to separate the renters' from the exhibitors' quota in order to promote an adequate supply of British product for their screens?

May I remind you that the exhibitors (who, we are told, control around ninety per cent of the finance invested in the film trade and industry) were eminently successful in their fight to reduce *ad absurdum* the provisions of a Bill-to-Promote-Production among the other ten per cent?

And may I point out that they have only become aware of the short-sightedness of their policy now that a shortage of product is causing their own pockets to suffer? Is it particularly clever or even honest on their part to hide their blunder behind a hard-luck plea on behalf of the workers in the industry?

One constructive word before my tears smudge my words. How about a *gala premiere* in one of those gaudy smuggeries not a hundred yards from Leicester Square, to provide Spectacles for Short-Sighted Exhibitors (and of course a slice of cake to ensure each one against a hungry Christmas)?

To avoid reprisals (being a pacifist), I enclose my card and beg to sign myself,

POGGY'S LITTLE BROTHER.

P.S.—A contribution for Pog's page:—

So the exhibitors are watching their audiences dwindle? And they blame lack of product and public distaste for revivals? Pog's memory cannot be expected to go back as far as the fight over the Quota Bill, so here is a strictly up-to-date suggestion made in all good faith to the exhibitors of Great Britain:—

(Continued at foot of next page)

"FILMS FOR DEMOCRACY LTD."

"Now an assortment of New Dealers, Misdealers, and intellectual shell-and-pea pitchmen want to unfold their keesters on the motion picture stage to hold forth on the merits of their assorted brands of social gamble, rattle-snake oil and panaceas for the sure relief of the economic and social chilblains, rheumatism, fallen arches and brick-dust in the wine that they and the likes of them have been creating for us."

This is the vivid and charming way Mr. Terry Ramsaye, leader writer for the American *Motion Picture Herald*, has of explaining that a large number of his more distinguished fellow countrymen are backing their belief in DEMOCRACY to the tune of $250,000. Under the title "*Films for Democracy Ltd.*" there is a plan to make initially three films which will not lack in entertainment but whose underlying theme will be the struggle to sustain and further the cause of democracy in the modern world. Such names among the sponsors as Fredric March, Fritz Lang, Marc Connelly and Walter Wanger suggest that the entertainment should be above the average. Many of the most famous stars and technicians are so keen to feel that for once they are using their art for something really constructive that they are ready to work on these films for only a fraction of their fabulous salaries and so help to put the venture on its feet.

There is a real possibility that this may bring to the screen the same mixture of supreme entertainment and thought provocation as has filled "legitimate" theatres for years when such names as Eugene O'Neill and Bernard Shaw are billed outside. And why not? Isn't it desirable that the most powerful influence in the modern world should occasionally use that influence to reinforce a cause in which we all profess to believe? But for Mr. Terry Ramsaye and his friends DEMOCRACY, as distinct from children, should be heard about and not seen too much. Democracy has been just a little too successful in California lately, and ought not to be further encouraged. If people start to make films because they wish to and not only because they return substantial profits to the bankers, what will the American screen come to? Furthermore, the films may be successful; and if they are successful the people will ask for more like that. There is no end to the inconvenience these people may cause. . . .

It is a venture which we shall watch over here with great interest, some of us with envy. I think most British technicians will wish to say "Good Luck" to these men and women who are trying to broaden the scope and enrich the art of the screen.

CORRESPONDENCE

(Continued from previous column)

1.—Make your cinema bomb-proof (or transfer the seats to a disused coal-mine).

2.—Advertise as follows: YOU ARE SAFER HERE THAN IN YOUR OWN HOME.

BRING YOUR KNITTING.

COOKING IS NOT PERMITTED IN THE FRONT ROWS OF THE CIRCLE OR THE SEATS IMMEDIATELY BELOW.

(This is for fair play for the upper classes. All the Best People have to do is bring the cook-general and let her do the cooking in the fivepennies).

TOWARDS MEAL TIMES THE HOUSE LIGHTS WILL BE RAISED OR LOWERED BY PLEBISCITE.

NO SELF-DETERMINATION FOR MINORITIES.

(Mais ca, c'est une autre histoire et beaucoup plus sale. Meaning: But that there, it is another history, for which we haven't room).

MAINTENANCE OF A DEVELOPER BY CONTINUOUS REPLENISHMENT

By Ralph M. Evans, *of Kodak Research Laboratories*

IN the handling of motion picture film on continuously processing machines, or of roll films on intermittent machines, it becomes essential that the developer should always have the same properties, not only from hour to hour but from month to month. This is true largely because it is not economically practical to vary the time of development to any great extent, nor to alter the amount of exposure given to the material in order to compensate for changes in developing power. A single reel of motion picture negative may be printed from three to five hundred times over a period of a week or more and then be printed spasmodically as orders are received over a period of years. To change the printing exposures from day to day would be much more costly than proper maintenance of the bath. Variation in the bath also would not permit the maintenance of consistent quality.

Accordingly, the larger motion picture laboratories are confronted with the problem of maintaining their developers at a constant level at all times. Since, from the nature of the problem, replenishing must be continuous, it is apparent that the situation is relatively complex. It is possible, however, to reduce the problem to a relatively simple mathematical equation and deduce from this certain important rules for procedure. Because of the lack of previous literature on the subject the following discussion is relatively complete.

It should be stated at the outset that nothing short of complete running chemical analyses of the solutions and a frequently modified replenishing formula is possible for a *complete* solution of the problem. These extremes are seldom necessary because of the variations which may be permitted and the possibility of photographic tests. To the writer's knowledge such chemical analyses are not at the present time being carried out in any of the major laboratories, although the importance of the problem and the possibilities for economy would seem to make them distinctly desirable.

Maintaining a solution constant involves correcting for variations caused both by air and by silver halide. Both of these are oxidising agents and their effect varies to some extent with the nature of the developing agent. Lehmann and Tausch* have shown that when an alkaline mixture of elon and hydroquinone is oxidised by air, only the hydroquinone reacts. Only after the hydroquinone is nearly used up does elon take any appreciable part in the reation. The chief product of the oxidation is hydroquinone monosulphonate, which is formed according to the following equation,

$$C_6H_4(OH)_2 + O_2 + 2Na_2SO_3 = C_6H_3(OH)_2.SO_3Na + Na_2SO_4 + NaOH$$

The equation for elon is the same except that elon monosulphonate is formed. A small percentage of the oxidised developer does not form the monosulphonate but passes on to more complex structures. The end product of this small percentage is a brown compound or mixture of compounds of the humic acid type. It is this portion of the oxidation products which causes the familiar stain of severely exhausted developers. It appears that not over 5% of the oxidised developing agent passes into this form.

When an MQ developer is oxidised by silver bromide, however, as it is in the normal process of developing an image, it is not the hydroquinone but the elon which plays the more important role. Under most conditions there is probably a considerable amount of hydroquinone also oxidised *simultaneously*. The equation is

$$C_6H_4(OH)_2 + 2AgBr + Na_2SO_3 = C_6H_3(OH)_2.SO_3Na + 2Ag + NaBr + HBr$$

for hydroquinone and a similar equation exists for elon.

Extended oxidation by air or silver bromide will produce considerable quantities of the disulphonates of both hydroquinone and elon but since such badly oxidised solutions are not in use they need not be discussed here.

Elon monosulphonate may be used as a developing agent, as was pointed out by Tausch, and hydroquinone sulphonate as a developer has been known for many years. Both of these compounds, however, are very weak in their action and their presence in an MQ developer in small quantities produces no appreciable change in the bath. To the extent that these compounds in any given solution form, they may be considered simply as so much hydroquinone or elon removed. Some of the other products formed are not at all negligible and are considered below in detail.

The present discussion will be restricted to elon-hydroquinone developers which have in their original formulae only suphite, alkaline salts, and soluble halides, in addition to the developing agents themselves. In order to generalise the problem the specific nature of the alkali will not be assumed.

Accordingly, in a fresh batch of developer solution there is present:

1. Elon,
2. Hydroquinone,
3. Sodium sulphite,
4. Alkaline salts,
5. Soluble bromide (usually potassium).

Oxidation of this solution by air will produce:

6. Hydroquinone monosulphonate,
7. Sodium sulphate,
8. Free hydroxide (NaOH),
9. Staining developer by-products.

Oxidation by silver bromide emulsions (which always contain a small percentage of silver iodide) will produce in addition:

10. More soluble bromide,
11. Soluble iodide up to equilibrium with the film,

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*Tausch E. Thesis. Dresden, 1934. *Lehmann E. and Tausch E. Phot. Korr., 71 17 and 35 (1935). See also :— *Seyewetz A. and Szymson S. Bull. soc franc. Phot., 21, 71 and 326 (1934). *Pinnow J. Z. Elektrochem, 21, 380 (1915) and previous literature on hydroquinone quoted by Pinnow.

12. Elon monosulphonate,
13. Slight traces of elon and hydroquinone disulphonates,
14. Free acid (HBr),
15. Temporary (up to a few hours after use) concentrations of unreduced, dissolved silver complexes.

The alkaline water solution will produce:

17. Dissolved gelatin,
18. Probable degradation products of gelatin.

In addition there will be a gradual accumulation of substances present in the emulsion of the film which dissolve out into the developer. Such substances are sensitising dyes (in negative materials), more soluble bromide, etc. Dirt, calcium carbonate, and extraneous matter will also enter the tanks either on the film or in the water, and there are probably small amounts of other substances produced by chemical reactions of which there is at present no knowledge.

The problem of replenishing such a solution is twofold. Starting with fresh solution the bath must be brought to a state of dynamic equilibrium with film, air, and replenisher without permitting the photographic properties to change appreciably. This equilibrium must then be maintained in the face of changing conditions and, in general, with only the replenisher as an independent variable, since film and air quantities cannot be varied at will. In a large industrial laboratory the amount of solution in the machines may be approximately 10,000 gallons and the amount of film to be processed may be from five to ten million feet of motion picture positive per week. Correspondingly lower figures hold for negative handling.

It is customary to connect batteries of developing machines by a system of piping in such a way that all the developer may be made to circulate past a single point. The volume of the solution is, of course, held constant.

Dry film passes into the developer at a constant rate during the operation of a machine and carried with it a small amount of air, both on its surfaces and in the perforations. The latent image on this film enables the developer to reduce to metallic silver a quantity of silver halide which varies widely, depending on the nature of the subject matter. Motion picture positive film contains per thousand feet, roughly fifty grams of metallic silver in the form of halide salts. Of this, amounts varying from practically none up to nearly the full amount may be developed, depending on the subject of the reel. Thus sound track, or black titles on a clear ground, may represent only a few grams of silver per thousand feet, while a reel consisting largely of night scenes and the like may represent forty grams or more of reduced silver. On the average, approximately one quarter of the silver is ordinarily utilised, or from 10 to 15 grams. The remainder may be recovered by an efficient hypo recovery system. With respect to a given developing machine, however, the total average amount of silver reduced per day is not constant unless care is taken to vary the type of work being handled. With an efficient circulating system, good mixing, and several developing machines operating simultaneously, satisfactory averaging of the work on all machines is possible.

The wet film after development passes out of the developing solution into the rinse water, carrying with it a considerable quantity of the solution. This quantity varies with the speed of the film, the design of the machine, and the efficiency of such devices as may be present to prevent "carry over." If the surface of the film carries no surplus layer of liquid there is in the gelatin of motion picture positive approximately one quart of solution per thousand feet. High speed and absence of devices to remove the surface layer may triple this figure. This solution loss, then, represents a definite *minimum* of liquid which *must* be added to the system as a whole to maintain its volume constant. This quantity frequently is insufficient and more must be bled away so that the desired amount of replenisher may be introduced without overflowing the tanks.

Since there is seldom occasion to refill such a system completely with entirely fresh solutions the dynamic equilibrium which must be maintained after ageing will be considered first. Since fresh replenisher is constantly entering the system, and developer which has nearly the photographic properties of the bath as a whole is constantly leaving it, considerable economy can be effected by choosing the proper position for the point on the system at which the two occur. They should be so situated that the "bleed" by which solution is removed occurs in the system just before the point at which the replenisher enters the system. Theoretically, some economy could also be effected by having the fresher developer at the end of the machine into which dry film is being fed and the more exhausted developer removed from the other end. This sets up an unstable balance, however, which breaks down when the machine is stopped and so leads to variations over which there is little control.

If the system is so designed that perfect mixing may be assumed at all times, an equation may be written for the growth or decrease of any constituent of the solution. For convenience in computation, the figures will be given in the metric system for 10,000 gallons of developer replenished at a rate of $2\frac{1}{2}$ gallons per minute.

If b = replenisher rate in litres per minute = bleed rate
v = total volume of the system in litres
a' = initial total amount of a given substance
x' = amount of the given substance at time t
k' = amount of the substance added per minute

$$\text{then} \quad k'dt - \frac{b}{v}x'dt = dx' \text{ or } dt = \frac{dx'}{k' - \frac{b}{v}x'}$$

this equation has as a solution

$$t = \frac{v}{b}\log_e \frac{(k' - \frac{b}{v}a')}{(k' - \frac{b}{v}x')} \text{ or } \frac{b}{v}x' = k' - (k' - \frac{b}{v}a')\, e^{-\frac{b}{v}t}$$

A rather obvious axiom which greatly simplifies the calculations may be stated as follows. **A substance which is being formed in the solution at a constant rate may be considered as being introduced in the replenisher.** Since material is also *actually* added in the replenisher it is convenient to convert the above equation to *concentrations* rather than *amounts*.

$$\text{set } k = \frac{k'}{b} = \text{concentration of material in replenisher}$$

$a = \frac{a'}{v} =$ initial concentration of the material in the system

$x = \frac{x'}{v} =$ concentration of the material in system at time t

The equation may now be converted to these variables, giving:

$$r = k - (k-a)e^{-\frac{bt}{v}} \text{ as a final solution.}$$

This equation holds for the growth of the concentration of any substance in the solution whether the initial value is zero or finite. An example will make its application clear. If the initial concentration of potassium bromide is assumed to be one gram per litre, then $a = 1$. Other figures may be assumed as follows:

$b = 10$ litres per minute

$v = 40{,}000$ litres.

If several high speed developing machines are all in operation on the system the amount of film developed may be 1,000 feet per minute. From this quantity of film we may expect that bromide in amount equivalent to about 15 grams of silver will be released. This is roughly the equivalent of 15 grams per minute of potassium bromide. Since complete mixing has been assumed this amount may be considered for convenience as entering in the replenisher which, of itself, would contain none. This gives $k = 1.5$ grams per litre of replenisher solution per minute.

The equation for r, the concentration of bromide in the bath as a whole at times t, becomes

$$r = 1.5 - (1.5-1)e^{-\frac{10}{40000}t}$$

$$\text{or } r = 1.5 - .5e^{-\frac{t}{4000}}$$

Since such a system if operated long enough will come to equilibrium at a constant concentration of bromide it is of interest to determine what this equilibrium concentration is. Substituting $t =$ infinity it is seen that the last part of the expression becomes zero and $r = 1.5$ grams per litre of potassium bromide. That is, the bromide has increased to the concentration calculated above by dividing the amount formed per minute by the number of litres per minute of replenisher added. This illustrates the fact that **the equilibrium concentration of all ingredients except those used up in the process (developing agents and sulphite) tends to become equal to that of the replenisher solution.**

It is instructive to consider the time taken to attain this equilibrium. Because in theory the limit is approached exponentially, it is only possible to determine the time required to attain a given percentage. For practical purposes 1.45 grams per litre of bromide is certainly indistinguishable from 1.50. To find the time required to reach this value (97% of equilibrium) it is convenient to rewrite the equation so that it gives t in terms of x.

That is

$$t = \left(\frac{v}{b}\right) \log_e \frac{(k-a)}{(k-x)} = \frac{2.3v}{b} \log_{10} \frac{(k-a)}{(k-x)}$$

Under the above conditions then

$$t = \left[\frac{(2.3)\ (40000}{10}\right] \cdot \log_{10} \frac{(1.5-1)}{(1.\quad 51.45)}$$

and $t =$ 9200 minutes or a little over six days of continuous operation.

The mixing in the above example has been assumed perfect. In general, if the inlets and outlets are properly placed the time taken would tend to be less than the above rather than more. If there is a considerable amount of liquid carried over by the film it may be assumed that this liquid is somewhat richer in bromide than the solution in general. In this case the amount of bromide removed per minute is greater than that assumed and the equilibrium concentration is somewhat less. The time taken to reach the same percentage of equilibrium remains the same.

An exception was made in the application of these equations to calculations of the developer and the sulphite which are being exhausted. If the replenisher is so **increased** in the concentration of these ingredients (above that used in the fresh mix) that the amount used up is exactly equal to the amount added there will obviously be no change. If under the above conditions 1.5 grams of silver are reduced, then from the equation for the chemical reaction given earlier, the amount of developer used up would be approximately 7 grams if it were all hydroquinone and 12 grams if it were all elon (one mole of developer reduces two moles of silver bromide). In a positive type developer, we may assume that approximately ten times as much elon reacts as does hydroquinone, although this figure must be determined for every formula and for every developing time. If this figure is assumed, then 0.63 grams of hydroquinone and 10.9 grams of elon are used up per minute. These amounts must be supplied by the replenisher. If the rate of supply of the replenisher is 10 litres per minute, then .063 grams per litre of hydroquinone and 1.09 grams per litre of elon must be present **in addition** to the amount present in the regular formula. By the same reasoning 0.8 grams per litre of anhydrous sodium sulphite is needed, but such a small amount may be neglected.

The foregoing calculations do not include the effect of air on the solution. It has been shown that this affects only the hydroquinone and the sulphite and it obviously depends to a very large extent on the system itself. Variable sources of air are the pumps, the speed of the film, and the free air surfaces. If it is assumed, for illustration, that the entire system absorbs and reacts with the oxygen in *one* cubic foot of air per minute, then the hydroquinone equivalent of this oxygen equals 27.2 grams per minute (760 mm. pressure and 20°C.). The sulphite equivalent is roughly 62 grams. Replenishing at the rate of ten litres per minute, therefore, it would be necessary to add 2.7 grams of hydroquinone and 6.2 grams per litre of sulphite in addition to the amount necessary to compensate for development of the films. Note that this is for only one cubic foot of air absorbed per minute in a ten thousand gallon system. Actual figures which would show the true extent of aerial oxidation in such a system are not available. It is apparent however, that it is economical to go to some lengths to reduce aeration of the solution.

Digressing for a moment, it should be noted that the Lehmann and Tausch equations quoted above indicate a way in which the actual air absorption may be readily measured. Sodium sulphate is formed only during aerial oxidation. This product does not appear when silver halide is the oxidising agent. After a bath has been in operation for some time and has come to equilibrium with respect to this sulphate a simple analysis will give its concentration in grams per litre. By the reasoning used above,

this quantity multiplied by the replenisher rate in litres per minute gives the average amount of sulphate produced per minute by the air. One mole of oxygen produces one mole of sodium sulphate, to a good first approximation. Since the ratio of the molecular weights is roughly 4.5, the number of grams per minute of sulphate divided by this figure gives the number of grams of oxygen per minute. One cubic foot of air at 760 mm. pressure and 20°C. contains 7.9 grams of oxygen. Hence, the number of grams of oxygen per minute divided by 7.9 gives the number of cubic feet of air absorbed per minute. The importance of obtaining this figure in such a way that is accurately averaged over a considerable length of time is obvious.

The equilibrium concentration of any ingredient as well as its concentration at any time after the start of the system may be calculated by the methods already outlined. If the initial concentration (a) of a compound is zero, as in the case of the sulphate, for example, the equations are simplified to

$$x = k\left(1 - e^{-\frac{bt}{v}}\right)$$

$$\text{and } t = \frac{2.3v}{b} \log_{10}\left(\frac{k}{k-x}\right)$$

where the letters have the same significance as before. The time taken to reach 90% of the equilibrium concentration does not change since it depends only on the ratio $\left(\frac{b}{v}\right)$ of replenisher to total volume.

It is now possible to consider the problem of starting with a fresh bath and bringing it to equilibrium without serious change in its photographic properties. The principle involved is apparent. For all the ingredients that are of importance it is only necessary that the original formula contain the **equilibrium amounts desired** and that the replenisher formula be correct. Under these circumstances, there will be no change in coming to equilibrium. These equilibrium concentrations may be calculated easily, since for all cases they are equal to the amount of the substances formed per minute divided by the number of litres of replenisher which is to be supplied to the solution per minute. The elon, hydroquinone, and sulphite concentrations of the original solution are arbitrary, but a correct replenisher must contain the same amounts **plus** the amount per minute to be used up in the machine. The total alkali concentration must be the same in both cases except that since hydroxide is released by air oxidation and silver halide oxidation releases acid, either acid or hydroxide, respectively, must be added to the replenisher if the rate of production of the one during use of the bath exceeds that of the other. The addition should preferably be in the form of sodium hydroxide or hydrochloric acid so that the alkaline salt equilibrium of the solution is not upset. Silver iodide in infinitesimal amounts may have to be added. Anti-toggants present in used developers may call for the addition of small amounts of anti-foggants to fresh solutions.

It is important to note in this connection that the alkalinity of the bath **at equilibrium** cannot be calculated by the equations given here. It can, however, be held at that of the original mix. When free acid or hydroxide is added to a complex solution such as is used for developers, the change in alkalinity or pH of the solution depends more on the nature and concentration of the compounds present than on the amount of the acid or alkali added. It is entirely possible to calculate the amount of hydroxide formed by air (from sulphate determinations) and the acid released on development (from bromide analyses) and to correct for these by acid or alkali in the replenisher. Measurements of pH will show whether or not **excess** has been added by indicating a **change** in alkalinity, although the measurements must be very precise if they are to be of value. In general, however, pH measurements cannot be used to calculate the amount which it is necessary to add unless careful calibration of the **particular sclution** has been made in these terms.

While some assumptions have been made in arriving at the equations above, the only serious discrepancy to be expected is that due to incomplete mixing in the machine. This can be estimated satisfactorily only for a given system. A further assumption has been made, namely that air and silver oxidation are always present simultaneously. In those systems in which it is customary to circulate the solutions for a long time before the film is started, this difference must be taken into account. For this problem there seems to be no complete solution except a different replenisher formula for each condition.

It is now practical to consider the economic phase of the problem. The factor which determines the concentration of all the products has been shown to be the replenisher rate. If a definite complete formula for the bath is prescribed and cannot be altered, this is where the matter stops; there are only one replenisher formula and one replenisher rate possible. Assume for instance, that the formation of bromide is the most important reaction and that the original formula, which is not to be changed, contains 0.5 grams per litre of this substance. Then if 15 grams per minute are formed by the development of the film, the replenisher rate for the system must be 30 litres a minute regardless of its size. The formula of the replenisher is then fixed by the amounts of substances such as developers which are **used up.**

The determination of the machine formula which will give the most economical operation is quite another matter. Certain things are readily determined. Since as many litres are thrown away as are supplied, the formula should be as dilute as possible in all its **original** constituents except bromide. Since the permissable **concentration** of reaction products formed determines the replenisher rate, the equilibrium concentration of these should be high. Fom this point on, the cost of the individual chemicals becomes important and a great many questions of quantity against cost and photographic quality arise. The answers to these questions will vary so much with individual conditions that no direct general solution solution is possible. A few of the opposing facts may be noted. Alkali is cheaper than developing agent and so should be in high quality so that developing agent may be reduced. Too high a pH value and too little developer gives high sensitivity to bromide and interferes with picture quality. High pH also usually increases the **rate** of air oxidation. Sulphite is cheaper than hydroquinone but not enough so to warrant using very large quantities. Larger quantities confer only slightly better keeping qualities on the bath than reasonable amounts. Hydroquinone is cheaper than elon but the two are not entirely equivalent photographically, as we have seen.

The solution should be as dilute as is permissable. Too great a dilution, however, introduces a large difference between the main bath and the replenisher. This in turn accentuates circulation non-uniformities and makes for a bad situation if any of the main body of the solution is lost through leakage. In the absence of other considerations the longer the time of development and the higher the temperature the more efficient becomes the utilisation of the developer. Limits are obviously set by the size of the machine, by aerial oxidation, and by the physical properties of the emulsion gelatin as well as by photographic standards. A high degree of agitation of the developer at the surface of the film is desirable for uniformity and considerably increases the efficiency of the bath. A **saving** by this means is not to be expected because there is a tendency toward excessive aeration. Considerable heating of the solution also puts an extra load on the cooling system.

It is true in most cases that the greatest possibility of affecting economy and at the same time making quality more uniform lies not so much in the use of any of the above devices as in obtaining knowledge of the exact status of the bath at equilibrium. With this knowledge it is possible to calculate the correct minimum amount of replenisher which may be used.

Nothing has as yet been said concerning methods by which the concentrations of the components of the bath may be checked. Such routine tests should be considered a matter of necessity. Increase in aeration alone, due to the sudden leaking of a pump or to a similar cause, may throw the developer badly off standard. Photographic tests have, to date, been nearly the only ones available. These are usually satisfactory (except for the time element) but leave two important possibilities unmeasured. In the first place, until very recent years, there has been no method for checking on gradual changes since there has been no way of knowing whether the film or the developer has changed. The present constancy of motion picture positive film characteristics has practically eliminated this problem. Secondly it is entirely possible, and, in fact likely, that if the formula for the replenisher is varied to keep the photographic properties constant there will be a progressive change in both the photographic quality (as distinct from gamma and speed) and in the composition of the bath. Sudden shifts in the quantity of oxygen absorbed by the system may greatly vary the hydroquinone concentration. A sudden leak in the system, if it is of the constant level automatic replenishing type, will introduce large quantities of replenisher unintentionally.

In order to guard against these contingencies and to make certain that no large changes are taking place unintentionally, some sort of a chemical analysis should be made for all the photographically active constituents. The following analytical scheme, abridged from the articles of Lehmann and Tausch and the Tausch thesis already referred to, represents a workable system. Much simpler and faster methods must be devised before analytical methods can become generally applicable (The hydroquinone analysis given below is a modification by Lehmann and Tausch of the method of Pinnow*).

To determine the concentrations of elon and hydroquinone use is made of two facts. *First*, since the oxidation products for the most part are the monosulphonates of the compounds, they are not extractable from water solutions by immiscible organic solvents such as ether. *Second*, while hydroquinone may be extracted quantitatively from water if the solution is acidified this is not true for elon since it forms acid salts. Elon may be quantitatively extracted only in mildly alkaline solutions (pH approximately 7.6). At this pH hydroquinone is also extracted, so that it is necessary to remove the hydroquinone first.

The procedure used by Tausch was as follows: 35.7 c.c. of developer solution were acidified with sulphuric acid to the point where a few cc. of hydroxide would again make the solution alkaline (permanent blue coloration of Congo red paper). The carbon dioxide and sulphur dioxide released were removed by evacuation. A few drops of methyl orange solution were added, and the whole was made up to 50 cc.; 35 cc. of this solution was then extracted with peroxide-free ether for 45 minutes, and the ether solution separated. The acid water residue containing the elon was then made alkaline, using methyl orange as indicator. A further extraction (20 cc. of ether) for 45 minutes removed the elon quantitatively. After evaporation of the ether the two compounds were then titrated with iodine in water solution containing sodium bicarbonate. From the iodine used up the amount of the agents was calculated for each case.

To determine the sulphite concentration a modification of well known methods was used. A weakly acidified iodine solution (100 cc.) containing an excess of iodine was placed in a flask and 2 cc. of developer were accurately introduced. After a short time the solution was back-titrated with thiosulphate to the starch-iodide end point.

Alkali was determined by titration with acid. Sulphate was determined by precipitating with barium salt and weighing the precipitate. Soluble bromide was obtained in the same manner after precipitation with silver.

By means of these tests it is possible to gauge accurately the proper rate of replenishment and the proper constitution for the replenisher. In addition, measurement of pH would give a still further check on the state of affairs in the bath. It cannot be over emphasised, however, that all these tests taken together do not specify the **photographic** quality of the product. They insure merely that the **strength** of the developer does not change. Sulphide-forming bacteria causing fog, by-products of development giving stain, and loss of quality from other sources, must be guarded against by an expert capable of recognising small changes. The present analysis is satisfactory for first order control only. As has been pointed out, however, the replenisher calculations hold for any product which is continuously formed in the bath. For this reason accurate determination of one product makes it possible to calculate the others at once.

*Pinnow *J. Z. fur Analytische Chem.* 50, 155 (1911).

The Annual Report of the Workers' Educational Association discloses that the Association is making increasing use of films (specially of documentary films on Social and Educational subjects).

Recent Publications

The Amplification and Distribution of Sound, by A. E. Greenlees, A.M.I.E.E. Chapman and Hall. 10/6.

This book is intended primarily for those whose job is the installation and operation of Public Address equipment. The author sets out to explain the principles of operation of the equipment necessary to distributive sound from a microphone, radio sets or records to an audience, and to describe how this is done. Only the most elementary knowledge of mathematics and electricity is assumed in the reader, and this book will therefore appeal most to the less advanced technician.

However, quite a lot of ground is covered in the course of 250 pages.

The significance and use of the decibel is clearly explained in an opening chapter dealing with fundamentals. The calculations of reactance and impedance are given, and the functioning of chokes and transformers explained. The principles of operation of various types of low frequency amplifiers are considered, together with methods of measuring their performance. Methods of tone control and volume expansion for record reproduction are included.

The construction of the carbon, condenser, moving coil, ribbon and cystal microphones is described, with observations on their characteristic behaviour and a table is given showing the advantages and disadvantages of each. The statement of the output level of a microphone is explained. Loudness of sound is discussed with relation to its effect on the ear and the definition of loudness in terms of the phone is explained. Methods of coupling microphones and pick-ups to amplifiers are dealt with in a section on mixer circuits. A chapter on loudspeakers is included, and the problem of controlling the volume of sound from the loudspeaker without loss of effieiency and without effecting the frequency and response explained.

Actual installations of a public address system are considered with relation to the distribution of sound to the audience, the power required, the effect of acoustic conditions, avoiding feed-back from the loudspeaker to the microphone, and so on. The distribution to a multiple system of loudspeakers is discussed, and several numerical examples are included to illustrate methods of obtaining correct matching of the impedance of the speakers to the output impedance of the amplifier. Observations on the drawing up of a specification for the wiring up of a permanent installation are included.

Attention is drawn to the importance of routine maintenance tests and illustrations are given of some faults that may arise.

It will therefore be seen that the author covers his subject well in a text-book that can readily be followed by anyone engaged in the industry of the amplification of sound and the relaying of it to an audience.

L. E. O.

Report on Physical Education and the Film. British Film Institute. 1/-

The report of the Committee of experts (the film ones were Kimberley and Miss Mary Field) set up by the B.F.I., to examine into films dealing with physical education—what films there are, what there should be, and how they ought to be made. Physical education is interpreted in its widest sense, to include sport, etc.

The conclusions are expressed in sententious schoolmasterish style that is even comic when, as often, it is solemnly announcing the obvious. Besides the platitudes, however, are impeccably sage and sound observations about the best manner for physical education films which should faultlessly guide the educationist and film-maker engaged in this genre. Included also is a thorough list of the films of this type available, giving details of some 120 items. The Committee deserves congratulations on such a useful report. Further, it is gratifying to read of the generous co-operation of Gaumont-British Instructional with the Committee. Such enlightenment is not common in our business and should always be commended.

I.M.

One Minus Two, by Henri Troyat. Duckworth. 7/6

The author presents a fairly interesting psychological study of a family whose one and only child achieves a brief fame as a child prodigy in the French film studios. The father, an actor of the old school who has never achieved more than minor successes in provincial theatres, bitterly resents the adulation which his son receives. The tragedy of his final humiliation when the boy also "flops" after a first great success is movingly described.

R.B.

THE CINE-TECHNICIAN

SIX ISSUES A YEAR (January, March, May, July, September, November).

Associate Editors:

Max Anderson, Sidney Cole, George H. Elvin, Kenneth Gordon.

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History of the Film, by Maurice Bardèche and Robert Brasillach (translated and edited by Iris Barry).

Allen and Unwin. 18/-

This book is by two Frenchmen with a strong sense of the cinematic importance of France. They have consequently an outlook at times instructive to us. Méliès, whose stature increases as time tracks away from him, they treat as fully as he merits, and their account of René Clair is the best I have read. They recall the importance of Max Linder, too little known to the contemporary technician. Their discussion of the Scandinavian film is good. They sum up de Mille bitingly—"(his films were) based on D. W. Griffith, blending a strong dose of puritanism with the morality of the French theatre." They remind us of a little-known aspect of Edison—"passionately intent on protecting his own interests. He actually bore little resemblance to the idyllic savant whom we were taught to admire in our childhood. Litigious, rapacious, he became a positive menace to film businessmen, who never knew when the Sheriff would serve a subpoena of Edison's on them next." And I like their anecdote of the French director Zecca who said one day, "I am rewriting Shakespeare. The wretched fellow has left out the most marvellous things." He had the right approach.

But their sense of historical proportion is bad—elephantiasis in places, stunted growth in others. While they find space for Finland and China, they make only two brief references to the industry in this country (one of them, inevitably, to "Henry VIII"). They appreciate Jean Epstein's "Finis Terrae" as an emergence of documentary but don't take their own opportunity of going on to discuss the English work in this field. Iris Barry, in her editorial comments, makes similar complaints in regard to America. The use of increasingly rapid cutting, for example, is attributed to Abel Gance. The name, of course, is Griffith. But Miss Barry herself is also guilty. In a footnote on Film Libraries, she mentions all of them *except* that of the British Film Institute.

Chaplin, by the way, is described as being born in a London suburb. Kennington must be looking up.

Pictures like "*Million Dollar Legs*," Paul Fejos's "*Lonesome*," and Jacques Feyder's "*Crainquebille*" are gratefully remembered, but the estimates of "*Tabu*" and Victor Trivas's "*No Man's Land*" are too grudging. On the whole the authors are too sentimental about the silent film and too ready to bemoan that all art disappeared from the cinema with its death.

They have some extraordinary approaches and opinions. They insist on treating all Russian-born directors, wherever they work, as examples of a peculiar thing they call the Russian genius, which they think operates "independently of social and political forms." They mix up Eisenstein and Kirsanov, Pudovkin and Tourjansky in a most irritating and illogical way. It was not until the Fascist reconstruction in Italy was really under way, they declare, that any interesting films appeared. Has anybody seen these interesting Italian films? And it is meaningless to say the Nazi "*Triumph des Willens*" that it "is a film of massed crowds and processions (some of which are magnificently handled). Its ideology is opposed to that of Marx but produces a similar effect."

There is a bad error on page 335, where reference is made to microphones instead of loudspeakers.

S.H.C.

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At least, that's what we are told;
To forget other's vice
For some days we're quite nice,
Then back to the "have and to hold."
Sounds somewhat cynical
To you, perhaps?
And my card reproduced here above,
Is lacking in holly,
It is'nt so jolly,
And doesn't say much about love?
There are things more important
To help us along—
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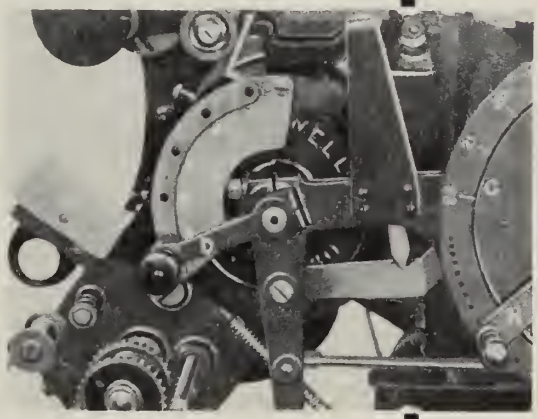

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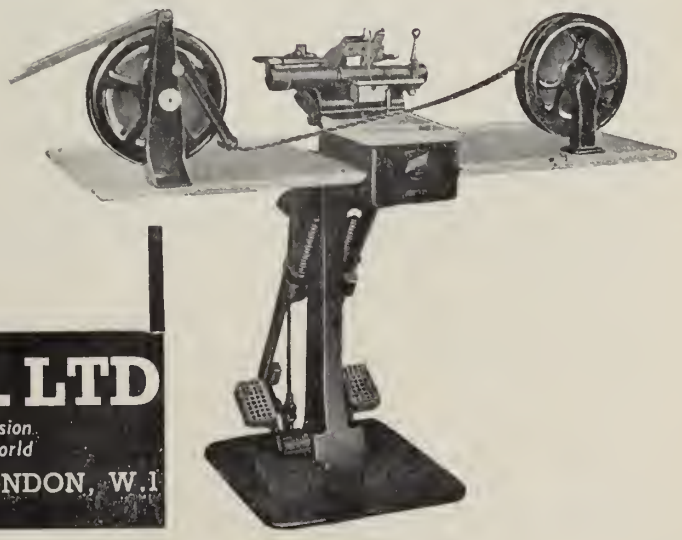

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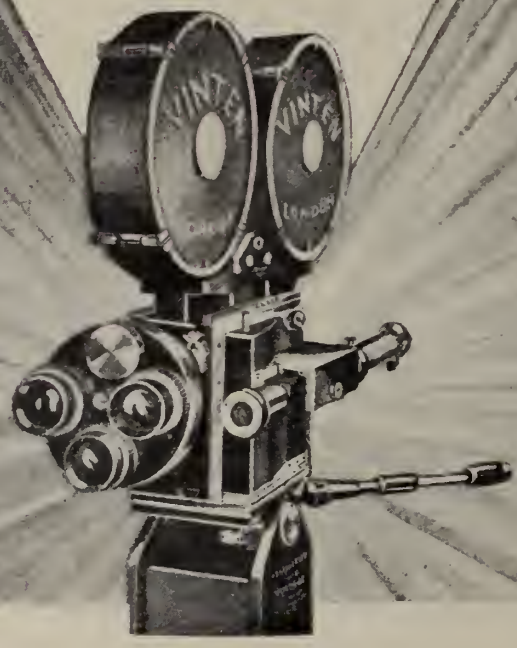

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Volume Four: Number Twenty **MARCH—APRIL, 1939** **Price Ninepence**

JEAN RENOIR

discusses his past, present and future

On Friday, January 27th, at a meeting organised jointly by A.C.T. and the British Film Institute, members had the opportunity of meeting Jean Renoir, the well known French film director. Son of the great painter, Pierre Renoir, and brother of the actor, Pierre Renoir, he is a forceful, bulky man of middle age with a forthright manner of speech which impresses with its honesty and good sense.
Reels from "*La Chienne*," "*Toni*," and "*La Grande Illusion*" were shown, and introduced by M. Renoir, as follows:—

FIRST of all, I must say how sorry I am that I have to address you in French, but the truth is that I do not know a single word of English. The reason for this is that when I was about 12 I used to play tennis a good deal with some young fellows who made a great deal of the fact that they knew English and would speak nothing else. If I said "Comment ça va?" they would pretend not to understand. From this I got the idea that to know English was a sure sign of snobbery and affectation, so I've remained ignorant of it to this day.

You are going shortly to see some reels of my film "*La Chienne*" (The Bitch), so I'll tell you how I came to make it. I must explain that I'd made a good many silent films and gained some reputation for making them. Well, when talkies came along, it was found that the only qualification necessary to direct a talkie was never to have made a silent film. This, of course, left me in a hole, and I spent a long time going from one producer's office to the next occupying the luxurious armchairs of their waiting-rooms. Finally an inexperienced producer, who cannot have heard of the rule that no silent film director could make a talkie, approached me—with some diffidence, as he was afraid the subject of the film was a bit crude for me. Naturally I was ready to accept anything, and I may say that the film never had any trouble with the censors anywhere. For a perfectly simple reason. Its subject was the most filthy, disgusting, lavatory-minded sewage that it was possible for the wit of man to devise. In this film I brought off a coup. I recorded with all the care and resources of Western Electric the sound of a lavatory chain being pulled and cut it in over one scene. It is impossible to imagine the resounding success of this masterly stroke. Producers went wild about it. The manager of Western Electric had the film run through in the theatre to him time and time again, simply to get the full savour of this magnificent recording of the sound of a lavatory chain. My name as a talkie director was made!

Then I was given "*La Chienne*" to make, and after that I made a film, a reel of which you will also see ("*Toni*"). This was a very cheap production made with very little money and very few technical facilities, but the subject was much more sympathetic to me. So when you see this film I should like you to allow for its technical failings and think more of it as a step in the direction I should like to go.

Finally, with "*La Grande Illusion*" (The Great Illusion), a reel from which you are going to see, I have been asked whether it represents my actual wartime experience. Well, I was never captured and in a prison camp during the war myself, but the story is a true ex-

perience exactly as related to me by an ex-Air Force friend of mine. I touted that story from producer to producer and they all said that it was bound to be a flop and that I was wasting my time. Finally I came upon a new producer just starting up, and not having any sense, he backed this film which I had been told was bound to be a flop.

> The reels from *"La Chienne," "Toni"* and *"La Grande Illusion"* were then shown. They left a very vivid impression. Obviously his main interest is in people, and their human relations, and how they may lead happier lives. But all his characters are firmly fixed in their actual surroundings; they are part of their background and cannot escape it. They must accept it and if they wish to change themselves must also alter it. In this, Renoir comes very close to Pabst. The personal destinies of his characters are somehow linked up with the whole fabric of society, and with true realism the balance is somewhere between psychology and sociology. Though studio-made, his films smack of the real life of the streets and homes of his countrymen, and, sure touch of the great director, he holds his shots, close-ups particularly, just that little longer that gives a chance for the extra shade of meaning, the extra understanding to come through.

BEEF SHOULD TASTE LIKE BEEF

I am very pleased to be with you here to-night, and I propose to thank you for your kind reception by assuring you here and now that I shall never make any films in England. The reason being, of course, that the films which I should make would be very bad ones, while those which you make are extremely good, and I think that the way for us to tackle our common problems of creating a really good international cinema is for you to continue to make English films, and for us on our side to do our best to continue to make good films in France. In addition, let us try to keep a steady exchange of pictures going between our countries, so that we can get to know one another by these direct messages sent from nation to nation, which is the essence of what films ought to be.

In parenthesis, I should like to say that circumstances may well arise—I need not particularize, we all know them only too well—in which I shall be forced to seek freedom in England. But in that case I shall come into the English film world not as a director but as a simple technician—camera-operator, electrician or projectionist. I have seen your ordinary man-in-the-street and I like what I have seen of him very much. But I would not have the presumption to attempt to interpret him in a film until I had lived here many years and had the opportunity of mixing with him, studying him, and living his life.

In my opinion it is a great mistake to believe in a cinema which is "internationally inspired." The English citizen can only interest Frenchmen by telling us stories about what is happening in his homeland, by trying to make us understand and love his country. If he tries to describe to us the Rue de la Paix, we have a right to retort that we know that street better than he does. Just the same with us. A French film is good not because it is "international" but because it is typically French. What is called "Russian Salad," with all the green stuff and so forth mixed up in confusion, is quite definitely bad cookery—good cookery consists in producing beef which tastes like beef, potatoes which taste like potatoes, and fish which tastes like fish. At the present time, thank Heaven, that is the general tendency in the world, and as a result there is a trend towards authenticity.

SLOW POISON

Unfortunately the cinema is at the same time a business; this business is in the hands of people of indeterminate nationality, citizens of Turkey, Egypt, Macedonia or Poland, whose parents were perhaps born in Russia or America or Germany. The true fatherland of these gentry is the sleeping-car; their food the whipped cream of the dining-car; their poetry that of the inter-continental aeroplane.

They are strong, and if we do not resist them they will kill us very gently, not by violent means, but by using the slow poison which those gentlemen without countries carry with them.

Do not mistake me. I am not against the adoption by our cinema of foreign technicians or artists; on the contrary these new comrades come to us impregnated with the perfume of their national folklore, and what they bring to our profession can only be enrichment. In France, Leonardo da Vinci and Benvenuto Cellini both enriched us, and we cannot accuse Francis the First of treason to the French because he welcomed them. Or, as a modern instance, who could say that the presence of Picasso in Paris, and the fact that he is working in our country, is not an honour of which every good Frenchman should be fully sensible?

I am not against those collaborators who bring us their strong arms and their brains, but I am against foreign producers and merchants and middlemen. I know too well that these gentlemen do not come to us because they love the tradition and atmosphere of my country, but that they come there simply to grab a few sous. If to-morrow the French cinema begins to decline, they will go elsewhere and will instal themselves in the most attractive avenues of Buenos Aires, Barcelona or Sydney with the same nonchalance as they displayed in planting themselves in the armchairs of their offices in the Champs Elysées.

ONE MAN IS NOTHING MUCH

Personally I believe that the best craftsmanship is done by those who keep in touch with their origins. Marcel Pagnol, whom I adore, is a great director because he has remained a man of Marseilles. When he talks, he does not talk merely in his own name but in the name of millions of small bourgeois, the little southern tradesmen who express themselves through his mouth. One man alone is nothing very much, but a man who has learnt how to become the mouthpiece of a great number is something very much more interesting, and it is rather curious to realise that badly directed internationalism leads to a kind of frantic and furious individualism. Through seeing too many people one seems to be able to see nobody, and on earth there is only one thing which counts, that is personal contact. I am quite sure that when people see and hear one of Marcel Pagnol's films in London, they understand that he is not talking just for himself, and that it is not he alone behind the screen but the whole of an eager and industrious population. This is much more interesting to the public than the work of an isolated man.

I would like now to give you the concrete reasons which fill me with hope for the future of the cinema in my country. Permit me to give you a short historical

account. In the time of the silent film the controllers of the French cinemas were the exhibitors, and for a very simple reason, that our markets were inundated with a considerable quantity of foreign films which could be appreciated by the French public by the simple means of changing the sub-titles. Talking films changed all that, since the barrier of language was one within which our films found themselves automatically protected from foreign competition, and thus the masters of the cinema became no longer the exhibitors, but the producers. The position is a good deal different for you since language does not form a barrier between you and the Americans.

Jean Gabin and Simone Simon in Renoir's "La Bête Humaine"

MONSTROSITY OF DUBBING

Several different methods were employed by the Americans and Germans in an attempt to recapture the French market. Both Berlin and Hollywood made French versions of many of their films, but this was cumbersome, and soon better ways were discovered. The latest is an extraordinary idea called "dubbing." I would like quite frankly to tell you what I think of it; I consider dubbing to be a monstrosity, a defiance of the laws of God and man.

How can we allow a man who has an individual body and an individual soul to attach to himself the voice of another man, a man who possesses equally an individual body and an individual soul, but quite different ones? It is a blasphemous defiance of human personality. I am fully persuaded that in the great ages of religious faith the inventors of this hideous idea would have been burned alive.

I must take this opportunity of protesting against the threat that is being made of dubbing "*La Grande Illusion*" for English audiences. How anybody could have conceived the idea of dubbing in one particular language a film, which has as one of its essential characteristics the fact that all the different nationalities in it express themselves in their mother tongue, is beyond my comprehension.

In this film the authenticity of accents, expressions, and language plays a first-class rôle, and I shall do all that I can to make the English public aware of the fact that the film which is going to be presented to them in this way in the name of "*La Grande Illusion*" has nothing whatever to do with my film.

However, in France the public expects dubbing and swallows it; dubbed films do not make much money, but they make enough to prevent our own films from going into every hall. I hope that soon our authorities will realise that they ought to tax dubbing and that the dubbing of foreign films will be considered just as much a betrayal of French films as of the authors and artists who originally made the film. I am all for real competition between cinemas of different nationalities but only on condition that the parties of this conflict should not disguise themselves under false colours.

MODEST DEFENDERS OF OUR ART

At the present moment this method of dubbing and the dishonesty of many French producers have caused our national cinema to fall back. When I say dishonesty, perhaps I exaggerated a little—should we rather say "inefficiency"? Our producers believed that the marvellous receipts from the first talking pictures represented the normal state of things, and under this impression they went in for an excess of extravagance.

In the excitement of the success of their first enterprises anybody and everybody became producers. Banana merchants, hall-porters, and business men of every oriental country rushed to the Champs Elysées, and proclaimed themselves the white hopes of the French cinema. And as they had not enough money, they borrowed, and to borrow they had to make guarantees which were supplied by the middlemen, who risked nothing. With the result that today, in January, 1939, the French cinema is in the hands of the distributors.

Well, my dear friends, this is a situation which must be stopped, and it will be stopped if the real workers in the cinema join together and organise themselves to drive from the temple these undesirable merchants.

In the cinema there are only three people that take any risk—the man who provides the money, the man who makes the film (this is actually a group of people, director, scenario writer, art director, actors and technicians), and the man who buys the film and presents it to the public, the final judge, that is to say, the exhibitor. And only those three groups, that risk something, should have any say in the future of the cinema.

Already there is a movement growing in France, undertakings have been set on foot by organisations of craftsmen working co-operatively. It is in this way that I am now going to work and I promise you that nobody in future will dub my films. This movement has got to succeed, and I draw the attention of our English friends to its significance. Because if it succeeds, it is the end of the combines trafficking in films, it is the end of all that succession of crookery and incompetence that in France they call "*la cavalerie*"! It is the end of the forcing of bad films on to the producers by illiterate distributors, it is the end of the film star who is loaded on to the director because she is the impresario's little friend. It is the beginning of an opportunity for us, the modest and conscientious defenders of our art, to talk to you directly from our hearts and to establish perhaps a direct contact between our countries.

(*Continued on page* 206)

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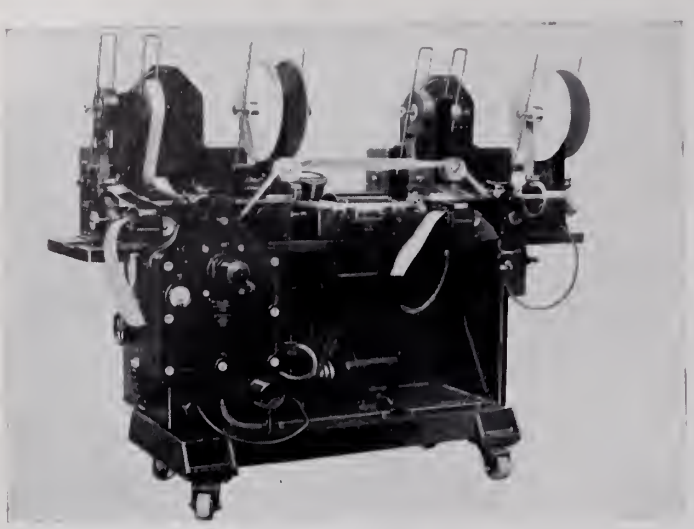

Vinten Dufaycolor duplex printer for printing colour and sound simultaneously

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Light Source

The light used for printing Dufaycolor consists of a 500 watt Tungsten lamp, the light from which passes through a special red glass filter on to a prism. This prism turns the red beam through an angle of 90° and passes it through the arc of a 400 watt Mercury Discharge tube. The combined light from the two lamps is now taken through a liquid Didymium-Chloride filter. This filter has been evolved after considerable research and its function is to pass the colour wavelengthbands necessary for printing Dufaycolor stock. Above the Didymium-Chloride cell is a sliding filter holder for a compensating filter which incorporated a patented aperture of special form and dimensions.

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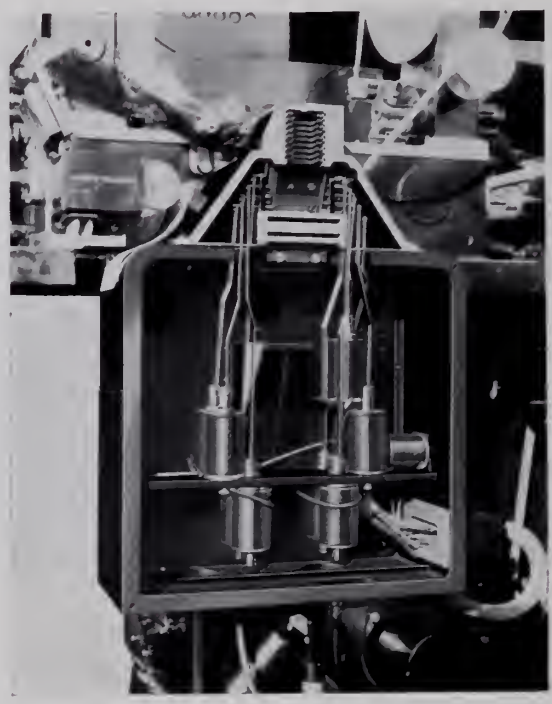

Interior of lamphouse showing solenoids for operating filter slides

synchronously moving band principle, which operates as follows: The negative to be printed is placed on the grading machine and this punches a parchment band 70 mm. wide with the combination of light intensity and colour correction which is required. As the negative is wound through the grading machine so the paper band moves in a ratio of 1,100 with the negative, and at each requisite change of light the chart is punched accordingly. This method obviates any mutilation or damage to the negative, and the chart once punched will last for the printing of 100 copies. When printing, the chart is placed on the machine and the negative laced with its synchronising mark at the printer gate. On starting the machine the light changes come into action at the point determined on the Grader, the whole process from then on is fully automatic. The number of different density and colour combinations in this system is over 400,000, without considering the compensating filters. It is thus obvious that every type of colour and density variation in a negative can be adequately looked after.

In practice it has been found that the Mercury Vapour

(Continued on page 204)

ROBERT HERRING on THE BEST OF TWO THOUSAND MOVIES

Editor of "Life and Letters Today"

TEN years ago I edited a book called *Films of the Year*. The implication was that they were the best. I can't think why. Most of us are agreed that there has never been a good film—not completely good, as good in all its parts as can be. That, in fact, is almost the only reason there is for continuing to be a film-critic—the hope that one day there will be a good film and that one is preparing the way for it.

Whilst we wait for that good film, however, nothing seems to prevent us from blithely and blandly labelling films "best." But there's no such thing as a "best" film. There can't be when so many factors co-operate with or militate against one's viewing of a film. I know myself that I have failed to do justice to some movies, which shall be nameless, because of a crowded schedule, a cold, a wrong time of day to see them in or the wrong audience to see them amongst. Any of these, and much else, may induce the wrong mood and though one does one's best to counteract it—and if one is properly professional, that is where training comes in—such adjustment remains intellectual. One hasn't got all the enjoyment there was in the film, and to each of us, the "best" films remain those we most enjoyed. Others we may conscientiously admire and approve, but that particular bell in us which means contact, hasn't been rung. I think it's no use pretending. We can only go through our minds and see which we remember. Later we may think why, but that comes at the end.

I have been a film-critic now for thirteen years, and was a film-goer for long (well, fairly long) before that. There are over two thousand films I have listed as seen. But I haven't gone through my file. I have trusted to memory, amused to see what would emerge.

There is a maze inhabited by the figures of Clara Kimball Young, Pearl White, Annette Kellerman. Later, by such as Pauline Frederick and Hayakawa. Oddly, I don't remember so much of these films as of the posters which drove me to them. The films I do remember haven't titles—there was something which now seems to have been a version of *Tosca*, at what was then the Electric Pavilion and is now, I think, the fun fair, at Marble Arch. There were swell people who were flattened by steam-rollers and used as doormats, seen in the movie at the foot of Putney Bridge (were they Bunny and Flora Finch?). There was the excitement of seeing the dogs' tails change from red to green in Kinemacolor at the Scala, and there was the free cinema at Mme. Tussaud's. Most vivid of all was a film in which a girl, combing her hair, saw in the hand-mirror the figure of what was then called an "intruder" in her room; more than twenty years later I was asked to admire just this device as latest technical development. I remember also the first super-impositions. These were the foundations. These were what excited one, held and haunted—not with vague ideas of "potentiality," but with the fact that they used the same terms and tricks as one's own mind. Till then, one had thought nothing did. Among other amusements, circus, roller-skating, bath-night, theatres and train-journeys, films rang the bell. One didn't think of "best" films; films were simply the best thing one knew for that most important thing to growth, of making one at home in the world by re-creating it.

And then comes a snag. We don't see the films in the order in which they were made. Thus, when I saw *Caligari* and King Vidor's *Jazz*, I was seeing them consciously as period-pieces, and the period was past. Against this, other films belong so much to their time that it is impossible to dissociate the circumstances of that time from the impression they left. British documentary has been overshadowed by *Drifters*. To many it may have left a greater impression than *Night Mail*, *North Sea*, *Nutrition*. But it would be absurd to say it was better than these; it couldn't have been. For the same reason, when I think of Chaplin, it isn't *The Pilgrim*, *Shoulder Arms* or *The Gold Rush* I see, but *The Emigrant*. The longer may have been "better" films, but it was *The Emigrant* which allowed him to make them and me to enjoy them. So, to me, *The Emigrant*'s best.

There is, too, another complication for the professional film-goer, the fact that he has the opportunity of being in at the start. If you say to me "René Clair," I think of *Paris Qui Dort*, because I remember wondering who made it, and finding out. I remember a film called *Two Arabian Nights*. It wasn't a good film, but it was better than most. It had something that made one sit up, and I decided to follow the director. His name was Lewis Milestone. Carole Lombard to me isn't so much the star of *Nothing Sacred* as the girl whom nobody seemed to notice in comedy after comedy at Paramount. *The Torrent* means much more to me than it should, because it was the first film in which I saw Garbo. Between catching trains in Paris, to escape the sun on the boulevards, I strolled into a cinema and saw—Garbo. Of whom I had not till then heard. So, in that film, I "discovered" her—for myself.

Every critic has his pet "discoveries" of this kind, and they colour his criticism. Sometimes adversely, because it is hard to decide if a star or director were really better before they were known or if we ourselves thought they were because we were agog with anticipation. More often, star and director gain from our memory. I don't think I should now be remembering *The Wind* if Lillian Gish and Victor Seastrom hadn't each done better work before that picture. It was nice to see them again, to recall what we had been missing—that, and some feet and a cow, are what I remember about *The Wind*. They don't make it a "best" film. But I remember it when many "better" are forgotten. And so I don't think it matters. We may have enjoyed various films, and we may remember them, for many reasons, few of which have much to do with the aesthetics or the craftmanship of the cinema. But each film we remember gratefully adds to

our willingness to appreciate the next. It does also, I still believe, increase our ability to refuse the shoddy.

To-day, *The Four Horsemen* and *The Thief of Bagdad* would seem silly. In their day, they were not and though even as I look back, I am amazed that they have left their mark, I am glad that they did. They helped one on. There were Westerns that did the same—too many to recall by name. There was Veidt's *Student of Prague*, irrevocably a "best" of its time, though I couldn't see it now. There was the Swedish school, and there were Asta Nielsen's films. I suppose no Soviet pictures ever equalled in my eyes *Potemkin* and *Mother*, because *Potemkin* and *Mother* were the advance-guard of the rest.

And so one goes on, until the maze straightens, the mist clears and one says confidently "these are among the best I have seen" . . . among fiction-films, *Foolish Wives, Joyless Street*, Pick's *New Year's Eve, Kameradschaft*, Epstein's *La Belle Nivernaise* and *Finis Terrae, Arne's Treasure, En Natt, Earth, Pepé le Moko, White Gold, Scarface, Public Enemy, They Won't Forget, October, Greed, A Woman of Paris, The Plainsman, The Virginian, Horse Feathers, Green Pastures*. For Garbo *Anna Christie* and *Christina*, with *As You Desire Me* thrown in. For Bette Davis, *Of Human Bondage* and *Jezebel*. Their chief interest technical, *The Great Consoler* and *Le Roman d'un Tricheur* stand out. I say "cartoons" and think of Krazy Kat in *Beaches and Screams*. My favourite Popeye remains *A Dream Walking*, and Mickey —the first I saw, in which the mice used gruyère cheese as a pianola-roll. *The General* keeps Keaton in the front line, and Laurel and Hardy still make me laugh when I think of *Big Business*. Of several "best" *Sillys*, I see most clearly *The Old Mill* and then, thinking of colour, laud Len Lye's *Colour Box*, and Smythe's record of the 1936 Mount Everest expedition, made on Kodachrome.

Painlevé's *L'Hippocampe* and Huxley's *Earthworm* head scientific films in my memory. They are jostled by other shorts—the G-B. *Medieval Village, Hereford Herd*, and *Development of the Chick;* Gas, Light and Coke's *Children at School;* Zenifilm's three-minute series; Moholy-Nagy's film on lobsters, and Rotha's on the *Face of Britain*. Best of the other kind of British film are *Owd Bob, Edge of the World, Turn of the Tide, The Lady Vanishes* and presumably, *The Citadel*. With that, latest hit, the list closes . . .

I said I could name these confidently. I should have said too "and must, quickly," for already I add *Nju*, in which Bergner gave a performance she has never surpassed. No doubt I could go on much longer, repairing omissions, but also becoming self-consciously fair. Memory plays strange tricks, but it is best to let her have her way. These films have come into my mind without cheeking . . . a poor enough handful out of two thousand, it seems, and none of them good all the way through. We hailed them and we remember them because at the time we felt that if films could go so far, in time they would go further, much further. They were portents of hope—"hope for I knew not what," in Edward Thomas's words. If, with all their added resources and increased efficiency, films now seen no nearer being good, it may be that, again in his words, "just hope has gone for ever."

And yet we find that even today such films have been made as *Spanish Earth*, *Spanish ABC* and the *March of Time's* noble refugee issue . . . It seems enough that they should do this much; adequately express what in these times we are trying to serve and to save. One may doubt and disagree about many in my two thousand. but these three are *the* 'best' to-day.

Film Workers Discuss Their Problems

VERY successful meetings were held by the newly formed Film Group of the Left Book Club on January 19th and February 16th. At the January meeting, Mr. Thorold Dickinson opened a discussion on "The Crisis in the British Film Industry"; he pointed out that the renting and exhibiting sides of the industry had a stranglehold on production, and only those films could be made of which they approved; and that economically, British films were virtually becoming "a colony of Hollywood," dependent upon American capital. The financing of a few American super-films a year made over here in no way compensated for the falling-off in the number of reasonably expensive British pictures which would keep our studios at work, and widespread unemployment among the technicians was the result.

POSSIBILITY OF COLLECTIVE FILM

The most hopeful solution he could propose was some form of collective film, made directly by the producer for the specialised audiences at which it was aimed, and shown directly to them without the intermediary of the film middleman. He suggested to the Group that the Left Book Club might be asked to finance a film of this kind, each of its members paying in advance for the making of a film on a subject of interest to the Club, which would be ready for showing at club meetings some six months later. This proposal was received with great interest by the Group, and a deputation appointed to submit it to the Club, together with a recommendation that the subject chosen should be a fiction film of life in the Distressed Areas and should be based on Miss Ellen Wilkinson's forthcoming book, "Jarrow: the Biography of a Town."

This has been done, and the proposal is still under consideration by headquarters.

CENSORSHIP

At the February meeting Mr. W. H. Thompson of the National Council for Civil Liberties opened with a general talk on Censorship, in which he showed that freedom of speech in this country was largely illusory. The propertied classes, controlling as they do the ownership of newspapers, halls, meeting-places, etc., can in many cases put an effective ban on public expressions of opinion with which they do not agree; and such Acts as the Law of Sedition and the charge of using "insulting words and behaviour" can be used against political agitators at the discretion of the magistrates. Mr. George Elvin followed with a talk on Censorship as it applies specifically to the cinema; and in the course of the discussion it was suggested that the Censorship was an "Aunt Sally" set up to mask the repressive tendencies of the Government, but that courageous opposition to its decrees, at present at any rate, is often successful, the authorities seldom caring to risk being publicly pilloried as repressive.

The next meeting takes place on March 16th, when "Vigilantes," the famous writer on foreign affairs, will be the speaker; details of this and future meetings can be had from the Hon. Secretary, Miss Elizabeth Coxhead, 8 Lloyd Square, W.C.1.

COMMERCIAL SUB-STANDARD PROCESSING

By STANLEY BOWLER, A.R.P.S.

Manager—Substandard Cine Department of Messrs. Gevaert, Ltd.

This article is based on a lecture given to A.C.T. members

THE problems encountered in a commercial sub-standard laboratory catering for amateur work are quite different from those encountered in an ordinary commercial laboratory. The public for which the work is done is a highly critical one. The standard of quality demanded depends to a considerable degree upon the projection apparatus in the possession of the individual customer.

This particular problem is, of course, one which has to be faced in an ordinary laboratory in the form of release-print density. In the amateur field, however, with the variation in projector efficiency, and also in the widely-varying projector lamp wattages, the problem becomes more acute. At the one end of the scale may be a projector with only a 15 w. lamp, while at the other end of the scale one may encounter a projector with a lamp with as high a wattage as 1,200, and at the present time there seems to be little care taken in selection of a machine to suit the conditions under which it will be used.

In order to deal with this matter, the ideal would be to treat each order almost as an individual processing job. But with an input of several hundred separate orders every day, it is not a practical matter, and so some compromise has to be arrived at as regards the average standard of density.

The next problem which faces the laboratory manager is that of variety of type and difference in length of the different orders. As an example, the smallest unit is a 25′ length of single run 8 m.m. Next in line is a 30′ length of 9.5 m.m., followed by 25′ lengths of double-8 m.m. (16 m.m. width).

In addition to these minimum lengths, the following have also to be allowed for: 50′ and 100′ lengths of double-8; 50′ and 100′ lengths of 9.5 m.m., and 50′ and 100′ lengths of 16 m.m.

In the laboratory for which I am responsible, we encounter all three gauges. In the three gauges of film, we have to deal with three varieties of reversal material; three varieties of negative material; positive material used both as "negative" stock and as reversal material; positive prints from negatives; reversal duplicates from reversal originals; and some negative dupes and some positive dupes to complete the list.

Having briefly outlined the material with which we have to deal, perhaps a brief reference to the organisation employed may also be of interest. In the first place all films, as received, are entered on record sheets, so that some control can be kept on the quantities of the various types of work handled by the laboratory. Numbered dockets are used which are marked up with the details of the order. Owing to the carelessness with which films are packed in some cases, although proper packing materials are supplied with the film stock in the first place, it is a strict rule that all in-coming processing orders are finally unpacked in the lab.

Although extra work is involved by doing so, amateur customers are invited to mark up their orders as to the type of work they have been doing with the film stock which they send for processing. The orders are sorted out into varieties of material, and types of work, so that the processing of these groups of orders may be as good as possible.

As an example, in the first stage of the reversal process one type of panchromatic reversal material requires eight minutes, while the orthochromatic and super-panchromatic varieties need from ten to twelve minutes. Exposures that have been made on artificially lit subjects must obviously be processed to avoid excessive contrast, while titles, on the other hand, need processing for contrast.

In view of the fact that the reversal process is generally not very widely known outside those laboratories which cater for this class of work, it is proposed to give in some detail the sequence of operations, and the formulae employed. It should be understood, however, that although this series of formulae will process satisfactorily a large number of different makes of reversal material, their particular and recommended application only applies to the products of my own company.

The reversal process consists of eleven operations, and these will now be given in detail, together with some explanatory notes at each stage.

First development. The exposed film is developed in an active metol-hydroquinone developer in order that this stage shall be as complete as possible, and to ensure the parts of the image that were white or very light-coloured in the original shall be fully developed right through to the base of the stock . . . it will be appreciated that if this were not done completely, there would be a veil of undeveloped emulsion left at a later stage of the process which would clog up the final positive image. The first developer formula used with Gevaert materials has, of necessity, been modified from time to time to meet changes in the characteristics of the emulsions supplied by the company. These formulae are given below:—

A.	1936	1937	1938	1938 modified
		grammes		
Metol	nil	nil	4	2
Hydroquinone	10	10	5	8
Sodium Sulphite Anhydrous	70	70	70	50
Sodium Carbonate Anhydrous	35	35	35	60
Potassium bromide	8	8	8	5
Sodium thiosulphate	2	nil	nil	nil
Potassium sulphocyanide	nil	3	3	5
Water, up to	1,000 c.c.s in each case			

B.

Caustic Soda (NaOH) in sticks ..	100 grammes
Water, up to	1,000 c.c.s

With the exception of the "1938 Modified" formula, 9½ parts of solution "A" should be mixed with ½ part of solution "B" for use.

The whole of the operations are carried out at a temperature maintained as nearly as possible at 68° F. and average times for the processing of normal speed panchromatic stocks are about 5 to 7 minutes, and for orthochromatic and super-speed panchromatic stocks about 6 to 9 minutes. For under-exposed and over-exposed films the first development stage provides one of the three possible means of correction or "compensation."

After the first development, the film is very thoroughly washed to get rid of as much of the alkali as is possible prior to the next stage, which is Reversal, or the dissolving away of the developed silver image. This stage is a finality process and, with fresh baths, should not take longer than about 5 minutes. The bath used is a normal acid-bichromate one and the following is the recommended formula:—

Potassium bichromate	5 grammes
Sulphuric acid, 66° Bé. or Commercial concentrated	9 grammes
Water, up to	1,000 c.c.s

After the film has been thoroughly cleared of all traces of the "negative" image, it is again carefully washed, in order to clear the acid and to remove as much of the bichromate stain as possible. The clearing of the bichromate stain is finally completed in a bleach bath of 10% anhydrous sodium sulphite. Only a relatively short rinse in this bath is required in order to clear whatever stain may remain after the intermediate washing.

After clearing, the film is again very thoroughly washed prior to second exposure. The second of the three possible controls over the density of the final image is exercised at this point, for it will be seen that if the film is only given a short second exposure, the emulsion remaining in the film will not be completely fogged out and will, therefore, not be capable of being completely developed (or darkened) in the second developer. If the film is given its full time under the second exposure light, all the remaining emulsion will be fogged out and the film will be capable of being completely darkened. Although theoretically the film is quite safe to handle in subdued artificial light as soon as it has been in the reversal (acid-bichromate) bath for about 2 minutes, by using a safe-light illumination it is possible to exercise the second-exposure control referred to above.

The fogged emulsion is then darkened in a second developer bath—formulae for which are again given as before:—

	1936 to 1938	1938 Modified
Metol	2 grammes	2 grammes
Hydroquinone	5 grammes	4 grammes
Sodium sulphite anhydrous...	100 grammes	60 grammes
Potassium carbonate	30 grammes	nil
Sodium carbonate anhydrous	nil	40 grammes
Potassium bromide	1.5 grammes	1 gramme
Water, up to	1,000 c.c.s	1,000 c.c.s

The normal time of development is about three to five minutes at 68° F. for normally exposed films. It will again be appreciated that if this second development is "cut" the resulting image will not be fully developed, and thus if there is a large remainder of emulsion from an under-exposed film, this can be dissolved away in a normal fixing bath so as to relieve the final density to some extent, and make the film "projectable" even on a low-powered machine.

The film is again washed and then passed to the fixing baths which are generally combined with an acid-hardener. The fixing bath merely serves in the normal way to make sure that there is no undeveloped silver emulsion acting as a veil over the final image . . . on the other hand, it also serves as the third possible control to arrest second development as previously referred to, and to cut away the unwanted balance of silver emulsion. A suitable acid-hardening-fixing bath formula is the following:—

Sodium thiosulphate	16 ounces
Potassium metabisulphite	2 ounces
Chrome alum	⅜ ounce
or ordinary alum	4 ounces
or commercial formalin	2 to 4 ounces
Water, up to	80 ounces

A thorough final washing completes the process, with the exception of drying, which is a normal operation. Excessive heat has of necessity to be avoided in order that the acetate base (all sub-standard film is coated onto a slow-burning or "non-inflammable" safety base) shall not be subjected to unnecessary contraction during drying.

The film having been dried and taken off in large rolls, these are taken to the examining room preparatory to examination and spooling on small individual projection spools, of which there are a number of different sizes, in order to accommodate the different units of length in the three gauges. Each separate order carries an identification number, the same as that on the works docket.

During the examination of each film, notes are made on a specially prepared report slip which is enclosed with every carton of processed film. This report slip is intended as a guide to assist the customer in future working with similar materials. Although the labour involved in making out these report slips may appear great, the trouble taken is obviously well worth while from the letters received from the customers.

The processed and spooled film, together with its report slip, is then packed in a cardboard carton which again bears the order number, and these are passed to the Despatch Department. It is the practice of our laboratory to maintain as far as possible a 24-hour postal service, and with very few exceptions this has actually been accomplished throughout the whole of this year—even including the heavy summer (August) rush.

In addition to the reversal materials, negative development is dealt with. This follows commercial laboratory practice very closely, with the exception that the units of length are considerably smaller.

Positive contact printing, on a step-by-step printer, completes the negative-positive service. A 48-hour service is maintained in this branch of the work.

Reversal duplicating from reversal originals by con-

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CHARTER for LAB WORKERS

Ralph Bond tells the Full story

An agreement was signed on February 16th, 1939, between the Film Production Employers' Federation and the Association of Cine-Technicians to regulate the wages and working conditions of all workers in the employ of the laboratories which are members of the Federation. It is the first Agreement covering laboratory workers in the history of the British film industry, the first collective agreement affecting any entire section of workers in the history of the British film industry, the first agreement negotiated by the recently formed Employers' Federation, and the first collective agreement negotiated by the A.C.T. on behalf of a complete section of its membership.

The A.C.T. Negotiating Committee was George H. Elvin (General Secretary), H. Craik (Chairman—Laboratory Committee), and R. Bond, F. Fuller and W. Watts.

Signing the Agreement

WHEN the General Council authorised its officers to sign the Laboratory Agreement, A.C.T. could justly claim that it had partly achieved its primary object—the establishment by collective bargaining of minimum wages and working conditions for its members.

The Laboratory Agreement is the first step—and a very important step too. It has proved that our Union is strong enough to win substantial increases of wages for a considerable section of the membership.

NEGOTIATIONS

The Agreement has taken a long time to negotiate. We first submitted proposals to the Employers on November 21st, 1936. For months they declined to meet us. Our members, incensed at this discourtesy, made it clear through a ballot vote, showing 90 per cent for strike action if necessary, that they were not prepared to tolerate an indefinite delay and at last, on May 3rd, 1937, the Employers agreed to meet officers of A.C.T. and negotiate.

Another delay ensued while the new Films Act was being debated in Parliament and it was not until after the passing of this Act, *with its Fair Wages Clause which included laboratory workers,* that representatives of the two sides met round the table with the serious intention of hammering out an agreement.

This meeting was held on July 28th, 1938, Captain Paul Kimberley presiding.

This proved to be the first of a long series of meetings. Often the conversations were amicable and good progress was made. At other times the proceedings became somewhat heated and deadlock appeared imminent. However it speaks much for the chairmanship of Captain Kimberley that we never actually came to blows!

On one momentous occasion the A.C.T. representatives felt compelled to withdraw from the meeting. The minimum wage offer from the other side was considered unacceptable. We appealed to the Ministry of Labour to intervene and shortly afterwards the discussions were resumed and the Employers made a better offer which was acceptable.

Throughout the whole course of the negotiations the A.C.T. representatives worked in the closest collaboration with the Laboratory Committee and the General Council, and great tribute must be paid to the members of the Laboratory Committee in particular, who week after week advised and instructed their representatives in the most thorough and efficient manner.

On November 29th, 1938, what was thought to be the last meeting between the two sides was held. We met from 2.30 p.m. until past 8 o'clock in the evening with-

The Agreement operated from March 6th, 1939, and the laboratories affected are :—

Associated British Laboratories, Elstree.
Automatic Barnes.
British Lion Film Laboratories.
Denham Laboratories.
G.F.D. Laboratories, Shepherds Bush.
George Humphries & Co.
Kay Film Printing Co., Finsbury Park.
Kay Film Printing Co., West End.
J. H. Martin.
National Screen Services.
Olympic Kine Laboratories.
Pathe Laboratories
R. E. Strange & Co.
Studio Film Laboratories.

out a break. Time and again it seemed as if no agreement would ever be reached on the few outstanding clauses. But, by both sides making concessions, agreement **was** reached. Both the employers and ourselves were to recommend to our respective Executives *that the Agreement should be signed to come into operation on January 1st,* 1939.

After a charming speech by Captain Kimberley thanking us for all the time and energy that had been expended, we walked out into Wardour Street and felt justified in celebrating with a quick one at "The Ship."

Of course we celebrated a little too soon, but at the moment I am trying to tell the story in chronological order.

The General Council endorsed the work of its Negotiating Committee and decided that a mass meeting should be held of all our laboratory members to receive a report and endorse, or reject, the proposed agreement. This meeting was held at the National Trade Union Club on December 11th, and after thorough consideration the members unanimously decided to accept the agreement. This decision was communicated to the Employers' Federation and we sat down to await *their* endorsement.

Then came the anti-climax. On January 13th, 1939, the Employers' Federation Executive notified A.C.T. that they could not sign the Agreement until negotiations on the Studio Agreement had been completed!

As these negotiations had only just commenced we envisaged a delay of several months. Emergency meetings of our members were held and with one voice they demanded that there must be no more delay in signing the Laboratory Agreement.

The Ministry of Labour was once again requested by A.C.T. to intervene and a meeting between A.C.T. representatives and the Employers' Executive took place on January 23rd. At this meeting it transpired that the Employers, contrary to the terms of their letter, did not wish to delay the Agreement until the Studio discussions were concluded, but wanted certain new clauses inserted in the Laboratory Agreement and certain existing clauses amended which would be common to the Studio Agreement as well.

These last minute alterations were quite unexpected by A.C.T. who had very reasonably assumed that the draft already negotiated would be the final document. However, we examined the new proposals, the most objectionable to us being a clause stipulating compulsory arbitration, since ample provision had already been made in the Agreement for procedure in the event of disputes, up to and including reference to the Ministry of Labour.

Further meetings were held between ourselves, the employers, the Chief Conciliation Officer of the Ministry of Labour, the Electrical Trades Union, and consultations with the Secretary of the N.A.T.K.E. Both these Unions were similarly affected by the new clause in their Studio Agreements and we had undertaken to consult them.

Finally, a revised wording of the Disputes Clause was submitted to us, and after further consultation with the other Unions we decided to accept it, although not without strong protest against this eleventh hour introduction of something which had delayed the signing of the Agreement for two months.

TERMS OF AGREEMENT

The Agreement is one that will directly benefit 95 per cent of our Laboratory members, and indirectly, every one of them.

It provides for a **44 hour week** in all laboratories except those regularly engaged in newsreel work, where 47 hours is agreed. Laboratories at present working less than these hours will continue to do so, and there is an important provision that no alteration shall be made either to working conditions (excepting overtime) or wages where existing conditions may be better than those provided for in the agreement.

Overtime will be paid, after 44 or 47 hours, as the case may be, **at time and a half** and workers regularly engaged on night shift will receive an extra shilling a night. (A.C.T. is not satisfied with the amount of extra payment for night work, and although it was the maximum offer we could extract from the employers we consider it entirely incommensurate with the inconvenience and strain imposed upon those who are required to work when most other people are in bed).

Very satisfactory, however, are the clauses on **holidays and sickness.** One week's paid holiday is guaranteed after six months' employment and two weeks after 12 months. In certain cases, applicable to one or two laboratories, employees with 12 months service or over will receive one week's holiday with pay during the summer period and one week at some other time or one week's money in lieu thereof. *If an employee is requested to cancel or postpone his holidays after his date has been allocated the Employer will pay all expenses which have been reasonably incurred.*

Every employee with up to six months consecutive employment will receive in the event of sickness one week at full pay and one week at half pay; from 6 to 12 months' employment two weeks at full pay and two weeks at half pay; after 12 months four weeks at full pay and four weeks at half pay. *All payments in respect of sick leave will be made without deduction of a sum equivalent to National Health Insurance benefit.*

An important additional clause provides for a joint committee of A.C.T. and the employers to consider any cases of employees whose absence through sickness may extend beyond the periods mentioned.

Other clauses in the Agreement provide for the **full recognition** of the appointed officers of the Association; an undertaking that there will be **no discrimination** against any employee because of his membership of A.C.T.; machinery for fixing rates and conditions for any department not covered by the Agreement; and an undertaking that where it has been the policy to employ men in any department this practice will not be modified.

There will be a **break between calls of 12 hours** except in urgent cases and where notice has been given to A.C.T. representatives. **Meal breaks** shall comprise not less than one hour not later than five hours after commencement of work, a second break of half-an-hour if more than one hour's overtime is to be worked, and a break of one hour not later than twelve hours after commencement of work.

WAGE RATES

Now to the wage rates. Firstly, it is agreed that if an employee regularly performs more than one job he shall be paid at the rate for the highest of the jobs he does. Secondly, where an employee temporarily performs a lower grade job than that for which he was engaged he will continue to be paid at the higher rate. Thirdly, where an employee has been away ill for more than four weeks the man who temporarily performs his job will be paid at the minimum scheduled rate for that job.

HOLIDAYS WITH PAY
AND AFTER

Thousands and thousands of Trade Union members have benefited from the welcome extension of the Holidays with Pay movement. Thousands more will benefit this year.

Many Union members receiving Holiday Pay will no doubt wish to take their families away with them for a week by the sea or in the country. To know that the whole family is enjoying a healthful holiday will in itself be a source of happiness and peace of mind. To have a family holiday—and indeed to have any holiday that is to be of maximum benefit —Union members will do wisely if they resolve to supplement their Holiday Pay by personal savings.

Preparation for this year's holiday should be going on now, and the most convenient way of putting by a bit of money for it week by week is to join a NATIONAL SAVINGS HOLIDAY CLUB. Clubs of this kind have already been established in a large number of places of employment throughout the country, providing employees with a secure means of saving personally for holiday purposes.

TRADE UNION OFFICIALS in a number of important industries are giving valuable support to this scheme which can obviously be of great service to Trade Union members.

The National Savings Committee offers every assistance in the organisation of Holiday Savings Clubs, including the provision of a speaker to address prospective members and an explanatory circular letter for distribution. Membership cards, literature, etc., are supplied free.

Enquiries should be addressed to the
NATIONAL SAVINGS COMMITTEE
(*Ref. R 21B*), LONDON, S.W.1.

SCHEDULE OF MINIMUM WAGE RATES

	Minimum Per Week £ s. d.
Optical Printing	
Optical Printer	7 10 0
Assistant Optical Printer	4 0 0
Negative Developing	
Superintendent in a Laboratory employing 25 Graded employees or more	7 10 0
Visual Developer in a Laboratory irrespective of the number of employees	5 10 0
***Negative Developers** (Sensitometric control)	
Grade 1	5 10 0
Grade 2	4 0 0
* Not less than 50 per cent of Negative Developers (Sensitometric control) employed by one Associate shall be in Grade 1.	
***Graders**	
Grade 1 (a)	6 10 0
Grade 1 (b) In Laboratory with under 25 Graded employees	6 0 0
Grade 2 (a)	5 0 0
Grade 2 (b) In Laboratory with under 25 Graded employees	4 10 0
* Not less than 50 per cent of Graders employed by any one Associate shall be in Grade 1.	
Printers	
Charge Hand	5 0 0
Printers	4 0 0
Positive Developers	
Charge Hand	5 0 0
Visual	4 0 0
Machine	3 10 0
Dryers	
Negative Dryers	
(a) Newsreel Laboratories	3 5 0
(b) Other Laboratories	3 2 6
Positive Dryers	
(a) Newsreel Laboratories	3 0 0
(b) Other Laboratories	2 17 6
Viewers and Projectionists	
Positive Viewer (Male)	3 15 0
do. (Female)	3 0 0
Projectionist (under Theatre conditions)	
First	4 10 0
Second	3 10 0
Stock Joiner	
(a) Newsreel Laboratories	3 0 0
(b) Other Laboratories	2 17 6
Stock Storekeeper	3 10 0
Vault Keeper	3 10 0
Negative Cleaners	
Negative Cleaners (Male)	3 0 0
Women under Male Charge Hand	2 2 0
Charge Hand	4 0 0

	Minimum Per Week £ s. d.
Positive Joiners (Examiners)	
Charge Hand (Male)	3 10 0
do. (Female)	3 0 0
Positive Joiners (Male)	3 0 0
do. (Female)	2 5 0
Negative Joiners	3 0 0
Negative Cutting	
Charge Hand	4 10 0
Negative Cutters	4 0 0
Assistants in Negative Cutting Room	3 0 0
Sensitometric Control	
First	6 0 0
Second (a) Newsreel Laboratories	3 0 0
(b) Other Laboratories	2 17 6
Laboratory Mechanics	
First	5 10 0
Second	3 15 0
Single Mechanic in Laboratory employing under 25 Graded employees	4 10 0
Chemical Mixers	
First	4 5 0
Second (a) Newsreel Laboratories	3 0 0
(b) Other Laboratories	2 17 6
***Still Darkroom**	4 10 0
* To be adjusted if necessary in accordance with studio rate when agreement is negotiated.	

JUVENILES

	Male £ s. d.	Female £ s. d.
Under 16 years of age	1 0 0	1 0 0
Over 16 and under 17	1 5 0	1 2 6
Over 17 and under 18	1 10 0	1 5 0

IMPROVERS

	Male £ s. d.		Female £ s. d.
Over 18 and under 19	1 17 6	*1st year*	1 7 6
Over 19 and under 20	2 2 6	*2nd year*	1 10 0
Over 20 and under 21	2 7 6	*3rd year*	1 15 0
Over 21—appropriate rate for grade with minimum of	2 17 6		2 0 0
or Newsreel Laboratories	3 0 0		2 0 0

Newcomers who enter the Industry over the age of 21 shall be paid:—

	£ s. d.
1st 6 months	2 0 0
2nd 6 months	2 5 0
3rd 6 months	2 12 6
Thereafter appropriate rate for grade with a minimum of	2 17 6
Or Newsreel Laboratories	3 0 0

No employee will be eligible for the minimum rates on any particular job unless he has served in such capacity for a minimum period of six months or has satisfactorily served with some other laboratory in that capacity for six months.

In fixing the rates for the variety of jobs and grades in laboratories, A.C.T. accepted as reasonable the principle that there should be two scales of wages for certain grades in—

(*a*) laboratories employing *less* than 25 graded employees, and

(*b*) laboratories employing *more* than that number.

The full list of wages provided for in the Agreement is alongside.

It will be seen that we have secured **a minimum wage of £3 for all male employees** at the age of 21 in newsreel laboratories, and **of £2 1s. 6d.** in other laboratories. We have also succeeded in establishing for the first time, *minimum rates for juniors and improvers.*

Of equal importance, we have established the principle that youngsters entering the industry will receive training in several departments, thus giving them the chance to acquire an all-round knowledge of laboratory work by the time they reach adult age. *The rates of employment of improvers to graded employees will not exceed* **1** *in* **10** *in laboratories employing over 25 employees, and* **1** *in* **5** *in laboratories with less than 25 employees.*

The Agreement is not everything we could desire. For instance we regret the differentiation of wages as between men and women in certain grades. We fought hard for the trade union principle of equal pay for equal work, but unfortunately very few industries have so far recognised this.

Viewing the Agreement as a whole, however, and bearing in mind that it is the first ever to be negotiated for laboratories, the General Council thinks it a very satisfactory achievement. This view was shared by the members at the mass meetings called to consider it.

It will run for two years, and if both sides see that it is kept, not only in the letter but in the spirit, the benefits to our members will be considerable.

One last word. *The necessity for strong Trade Union organisation does not cease with the signing of agreements.* On the contrary the necessity becomes all the greater.

Every laboratory employee must be made aware of the full terms of the agreement. The minority of employees who are not A.C.T. members should realise what has been done for them by a Union to which they should be proud to belong.

Let us set ourselves these objectives:—

(*1*) 100 per cent membership in every laboratory as speedily as possible.

(*2*) A strong representative A.C.T. committee in every laboratory.

(*3*) Popular and efficient secretaries and shop stewards.

(*4*) Regular branch meetings with prepared agendas and full discussion.

A.C.T. IS MARCHING FORWARD. LET EVERYONE PLAY HIS PART.

TRADE UNION (*Continued from page 193*)

asked for Holidays with Pay—Reduction of Hours—and many other things, and in some instances have been led to ask for regulation to run and maintain these things. For certain classes of unorganised work people we have secured Trade Board arrangements.

The Trade Union Movement of this country, however, would be very foolish indeed if they ever willingly gave up the right and power to organise themselves, irrespective of what the Government does. We owe nothing at all, so far as our origin and constitution is concerned, to any help from the state. The Trade Union movement would have to consider very deeply before it decided to abandon this position, and depend entirely upon the state for help. If you rely upon the Government to fix your wages, then you rely upon the intelligence and sympathy of people as a whole, and not upon your own strength. The Government can legislate only for *minimum* standards.

HOLLYWOOD (*Continued from page 191*)

together with a new projector editor, manufactured by Craig which permits the editing of 16mm. pictures projected on to a screen $2\frac{1}{4}$ x $3\frac{1}{4}$ inches. Roy Langford, vice-president of the Rotochrome Picture Corporation of New York, who produced perfect prints of Kodachrome back in 1930 together with variations of colour on prints, specimens of both of which I have actually shown to the staff at Elstree, forsees a day when 16mm. film will be a serious competitor to 35mm. A reason expressed is that the Kodachrome image, being non-silver, has virtually no grain and is capable of great magnification.

British productions in Hollywood are being received with tremendous acclaim, "Pygmalion" and "The Citadel" topping the list, with "Drums" and "South Riding" runners-up. A great pity that they constitute

Technicolour Labs, Hollywood

two years work instead of a quarter of that time. British Technicolor is considered excellent. The Technicolor Labs in Hollywood as shown in the accompanying picture, are being considerably extended.

In all the studios we have visited, the most outstanding and, to me, startling factor, is the small amount of light being used. Gregg Toland, who always uses a minimum of light anyway, has less on the set of "Wuthering Heights" than would be found in any ordinary drawing room. In spite of that, a stock like Kodak super XX is only in vogue for special work.

Teddy Sparkhul, Paramount's ace cameraman who was with B.I.P. way back in 1930, told me in his opinion no stock with a Weston rating higher than about 40, or faster than Kodak plus X, will ever be neeessary for ordinary work. For exteriors, he added that a faster stock would be somewhat of a nuisance, requiring extra neutral density filters. "The sun is too powerful in Hollywood," he concluded. "That may be so," I replied, "but how I am looking forward to a bathe in the Pacific on this lovely January afternoon." So I bathed in the Pacific, and the temperature was 72 degrees in the shade.

HOLLYWOOD—on a BICYCLE MADE FOR TWO

By DRUMMOND DRURY

A.C.T. camera member, who tells us of his tandem trip across the American continent, with Roy Langford, English stage director

PEDALLING the back end of a tandem cycle for an average of 14 hours a day is not nearly such an exhausting business as being slowly roasted under the kleigs—at least when you get used to it. I recommend any technician suffering from an overdose of "Quota" to jump aboard a bicycle and ride the 3,500 miles across this great country—a trip over which we took nine weeks. Many were the days on that long highway we thought we should never make it, but many were the salutations from kindly strangers, which always urged us on.

With muscles like iron and exposed parts of our bodies burned deep tan by ever brilliant sunshine, we arrived in Los Angeles late fall, to be immediately seized upon as curios—for we had made history unknowingly—the first to cross the continent on a bicycle made for two.

The fun began the very day of arrival, when we were literally dragged out to the modern massive new streamlined broadcasting studio of KNX (Columbia Broadcasting System) to introduce ourselves by radio to Californian listeners on the first American programme of "In Town To-Night." That started the ball which is still rolling after 12 hectic weeks, and which is being rolled by the good folk hereabouts right on to the ship that is about to take us home.

With no clothes other than the shorts and grubby sports shirts in which we arrived, we found ourselves early next morning as honoured guests of that extraordinary affair, the Los Angeles Breakfast Club, sitting beside that grand old man of the Motion Picture Business, Carl Laemmle; but even more embarrassing was it when Miss Beautiful Brunette California for 1938 sat between us, looking all of a million dollars. More breakfast clubs, luncheons, dinners, parties, schools. Day after day it goes on, with visits to the studios and old friends sandwiched in between.

Nestling on the lovely hillside, up in Coldwater Canyon in Beverley Hills is a quaint and fascinating Mexican farmhouse, and it was there that we had one of the most enjoyable days, lunching and playing tennis with the Boris Karloffs. During lunch another grand old man of the sports and entertainment world came to see us—C. Aubrey Smith, with whom Roy had associated in the theatres in England more than 14 years ago. Taking us by the arm he showed us from the top of a hill another hilltop some miles away, on which were growing two isolated trees. They were landmarks of "one acre" which he has bought for the small house in which he will retire when the movies have no further use for him. Heaven forbid! For Aubrey is a landmark in himself.

The sidelights of this so-called Glamour City are more interesting than the city in itself, which is but a part of Los Angeles, fifth in population in the United States, with its one and a half millions. The death rate in California is awful. The illegitimate speed of motor vehicles—outrageous, the legitimate speed 45 miles an hour, and the speed for houses, legitimate or otherwise, 5 miles an hour. Yes, speed for houses! One fine day Roy and I were intrigued to see a house, complete with furnishings, being hoisted from the ground. Next day we made another excursion to examine the phenomenon more closely. No house. The owners had decided to locate elsewhere. In a larger house, too big to move as a whole, the owner gave a tea party in the drawing roof half, whilst being towed along Los Angeles swank thoroughfare, "Wilshire." If you don't like the neighbours in Hollywood, you disconnect the water, telephone the movers, and off you go replete with chicken house and any herbage from the garden to which you have become particularly attached.

Facilities for scientific research are a tremendous added attraction in this clear climate of the Golden West. From almost every point of vantage in Los Angeles, the Griffith Observatory, perched up on Mount Hollywood, is a familiar landmark. There the latest Ziess planetarium instrument projects on the dome of a stellar theatre, the celestial mechanics of the visible universe; the giant

instrument, manipulated by a remote control organ, will bring before the audience stars as they were seen in the time of Julius Caesar. In the observatory annex are scientific gadgets galore. A button is pressed, and by means of invisible and most ingenious effects a complete scientific experiment is portrayed at your electrical command. But it is the elegance of the demonstrations which fascinates. In the "Alcove of Polarised Light," the effect of placing various crystaline media before a polarised beam is most clearly demonstrated, as is also the behaviour of optical glass under different pressures. Another unit shows the spectra of a dozen ionised gasses projected in turn on to a screen, for your information and education—at no cost to you.

The Griffith Observatory

Our first acquaintance with a film unit was not in Hollywood at all, but in the Middle West, where one hot day we found ourselves in the old haunts of Jesse James, bad man of long ago. There in a small village ironically named Pinewood, a Fox 20th Century unit was actively engaged in bringing America's Dick Turpin to life. Since then the picture has been released.

A note of interest here is that a new type of lamp was being used on the technicolor shots; a twin arc broad, recently evolved by Bardwell and McAlister, with an all-important quality of absolute silence in operation.

The equipment at Paramount Studios ranks equally as high as that at Fox, but it was surprising to note, during a visit to Paramount, that not one of the six productions on the floor were in technicolor. With their interest in the Dumont laboratories, New Jersey, Paramount created quite a stir with announcements of their intentions to broadcast television in a big way almost at once. It is of course common knowledge that the R.C.A. and N.B.C., principal radio corporations of America, started experimental transmissions way back in 1936, but unlike England which is well ahead in the television field, conditions and the tremendous distances in this land are deterrent factors from similar progress, although experiments have been given an added zest for the opening of the New York World's Fair, and the marketing of receivers seems more than probable.

Outstanding are the rapid strides of progress in the 16mm. field, which has brought sub-standard movies to a point where they are considered technically to have reached a par with the professional field. Recent progress is at its best illustration in the showrooms on Hollywood Boulevard, where an absolutely up-to-date 16mm. sound projector is demonstrated—a 750 watt model, by Ampro, with built in amplifier operating from either A.C. or D.C.;

(*Continued on page* 189)

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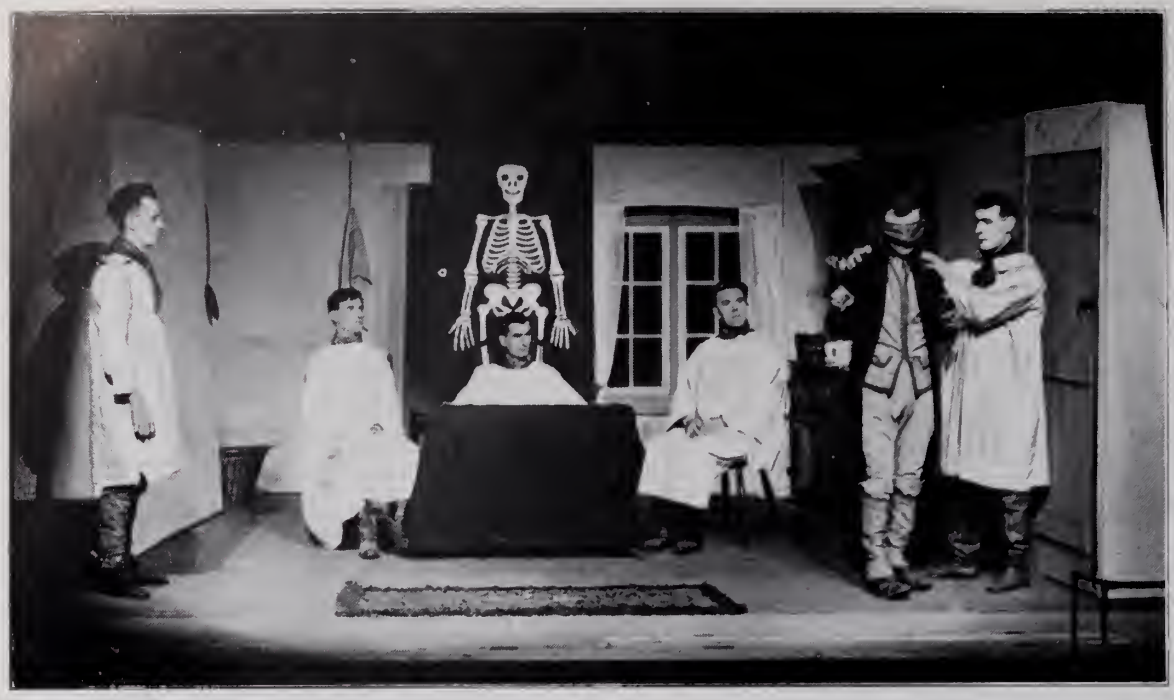


Initiation Ceremony of an early Trade Union

Courtesy : The T.U.C.

TRADE UNION HISTORY AND PRACTICE

by

GEORGE WOODCOCK, M.A.

(Research Officer of the Trades Union Congress)

A report of a lecture to members of The Association of Cine-Technicians.

I AM sorry that the help the Trades Union Congress tried to give your Association and the other Unions at the time of the passing of the 1938 Films Act was not more fruitful. As a matter of fact it was while we were trying to give that help that I had my first experience of the film industry and its organisation. Quite frankly the experience was not particularly reassuring. I am speaking not of the Trade Union side but of the employers' side. I think from what I saw of the film industry that in relation to Trade Union history and development your present situation is extraordinarily interesting. You are a new Union—new not only in the sense that you began comparatively recently, but new in that the attitude of your employers is, in some respects, 100 years behind the times. The present attitude of the law towards Trade Unionism, the development of trade unionism generally, are factors which mean that you will not necessarily have to take, in your industry, the length of time for development that has to be taken in other industries. But I think it is reasonable to say that your situation is not substantially different from the situation that has had to be faced in most other industries from the point of view of Trade Union organisation. I do think that in the present situation and in relation to the line that you may take in future you have much to learn from the history of Trade Unionism.

Briefly, there are two lines that you might follow. You might secure general support for minimum standards through Government activity or political pressure on Government activity. (This is in many cases absolutely necessary). On the other hand you might secure strong Trade Union organisation, but on a completely and entirely voluntary basis.

The Trade Union movement of this country is essentially a movement of the latter kind—a voluntary movement. There are in existence to-day statutes relating to the Trade Union movement, but that movement was not created by law. The present situation with regard to industrial relations and negotiations is the result of the efforts of the Trade Unions themselves. They have done this in spite of the law, until the law has eventually recognised and accepted the existence of Trade Unions.

It is necessary, I think, before we begin to consider the history, that we consider what trade unionism in this country is.

The structure of the Trade Union movement is in some respects complex. There are Craft Unions (like your own), General Unions, Industrial Unions, and Occupational Unions. The method of government varies considerably, but there is one thread that runs right through the whole Trade Union movement in this country, and that is that it is completely democratic. The machinery of democracy in this country can frame its own rules. The law can be invoked to see that these rules are carried out, but the government of a Union is the Union's own domestic concern—the Government of the country has nothing at all to do with it.

Legally some associations of employers, and even certain kinds of trade associations, are Trade Unions, but such organisations could not qualify for affiliation to the T.U.C. We would never consider affiliation from an association of employers.

The original purpose of Trade Union organisation was to protect work people from external attacks on wages and conditions—not to protect them against themselves. Most employers' associations were formed in the face of internal competition or lack of co-operation. As a result Trade Unions have greater cohesion and internal solidarity than have employers' associations.

Not only is the Trade Union movement democratic but it is non-exclusive. Trade Unions are not exclusive in the sense that they do not, in this country, exclude people on the grounds of religion, race or politics. Inside the movement every individual member has the right to express his own opinion and vote in some democratic form. The purpose of Trade Unionism is to protect the work people against their employers, and in fulfilling that function we see no reason for distinguishing on such grounds as religion, race or politics. We *do* distinguish in that we do not normally allow inside the Trade Union movement people who have no direct interest in the work that the Trade Unions are doing. The essential function of a Trade Union is to negotiate with the employer. Our essential purpose is to unite work people who work and serve a particular employer or industry or industrial group, so that you, for example, would not allow into membership of A.C.T. a man who was a cotton weaver, not because of his politics or race or religion, but because he had no reason to be a member of A.C.T. The function of your Union is to represent, as employees, people employed on the technical side of film production.

We have not been cluttered up in our movement generally by what is known as the "intelligentsia." Such people have not been encouraged to come inside the Trade Union movement. We have been free from irrational action which would have led us to dissipate our strength and divert us from our essential purpose.

Why did the movement known as Trade Unionism take its present form? The explanation is simple. We have to go back quite a long way—back to the time when there was very little industry in this country, in fact none at all. Back to the time when the Government, by one method or another, accepted responsibility for regulating the relations between "workmen" and master. But when the market extended to overseas, the "middleman" began to come between the producer and the consumer, and a stimulus was given to mechanical invention and large scale factory production under capitalistic control. As a result the craftsman became for the first time in history a hired workman with no prospects of ever becoming a master of his craft. Not only did this happen, but the development also removed from the political consideration of the country the idea or view of national responsibility for the "right" regulation of industry that had existed until then. Instead of helping the work people to get better conditions the Government went to the other extreme and attempted to prevent combinations of work people. By 1800 the work people were deprived of protection from Government, and at the same time they were refused the right of the alternative to that protection—Trade Union organisation. In effect the Government said: "If wages and conditions of employment are to be regulated in this country they will not be regulated by us." That attitude determined the first principle of Trade Union organisation in this country for all time. Work people had to come together in spite of the law and not because of it; therefore the movement was bound to be an extremely voluntary one. In those days no authority would force you to come together, indeed it was more likely to punish you for coming together.

Trade Unionism was recognised in this country in 1825, but it had actually begun much earlier in some industries. The fact that Trade Unions were illegal did not always deter work people from forming them. An employer might know that he could appeal to the law to smash the Trade Union but ultimately he began to realise that there was not much use in invoking the law if he was still to meet with the same opposition. For the sake of peace he realised that he must come to some sort of agreement with his work people; so that even though the law was against Trade Unionism they still, in many cases, fulfilled their normal functions of regulating wages and conditions.

By 1850, some Unions at any rate, had realised that there was much to be gained from industry, even as it was then organised, if only work people were properly organised in permanent Unions with substantial funds. This view was based upon the recognition that, as Trade Unions, they had a special function which was not to be confused with other aspirations or more general application.

The strength of the British Trade Union movement as compared with the Trade Union movement of some other countries, is that our Trade Unions have never been hampered either in their industrial or political activities by confusion between proper instruments for one and the other.

The mass of general labour was not catered for by industrial or craft Unions. Until 1894 the mass of "unskilled" labour in this country was completely unorganised, working under extremely bad conditions and with very low wages. In 1894 an entirely different conception of Trade Unionism was introduced. The people were being paid low wages and the best thing they could do was to depend in their Trade Unionism rather upon allegiance to one another, than upon substantial funds and cash benefit. Their purpose was to get into the minds of the work people for whom they catered some idea of working class solidarity.

In 1900, the Labour Party was formed as a definite Trade Union Party. You could only be a member of the Labour Party through an organisation such as the Trade Union organisation, the I.L.P., or the Fabian Society, etc. It resulted in the return of about 26 Labour members of Parliament in 1906. It had an effect upon the Trade Union legislation of 1906 and 1913. After the War there was a good deal of talk of political action. But there has been something of a change since then. The Trade Union movement generally has become increasingly aware, since the War, of its power and its responsibility—its responsibility towards its own membership as well as the working class as a whole and society generally.

We try to get work people to pursue lines that we think are desirable and encourage them to do so, but is it wise to make irresponsible demands that we dare not sustain or that we cannot support by every ounce of strength we possess?

Since the War, Trade Unions have extended the scope of their activities very considerably. They have

(Continued on page 189)

IS A GOOD SCRIPT MORE IMPO

"I DO NOT KNOW WHICH I CONSIDER THE GR... the chair at the debate arranged by A.C.T. between the r... Directors. "Speaking as a writer, I have always found th... and wherever possible omitted my best scenes altogeth... scenarists have given me the most unutterable tripe, fr... floor I have made a few small but inspired changes th... Both are creations of the devil."

FRANK LAUNDER
(Screenwriters)

I THINK, in the present state of the film industry, instead of debating whether a good script is more important than good direction, it would be more appropriate if we discussed whether a good Films Act is more important than a bad President of the Board of Trade. The trouble is the most important person in British studios today is not the writer or the director—but the caretaker.

A number of British producers are active looking for money for their next picture and a number of technicians are very active running after money for their last—apart from this there is very little else happening.

I must say I think it is going to be very difficult to convince a number of people composed entirely of members of the film industry that a good script is more important than good direction. A good film is really made by team-work but unfortunately very few pepole seem to realise this. The ordinary man in the street thinks that the screen-writer just writes a story on a few sheets of notepaper and leaves the rest to the actors and actresses. Some time ago I heard a couple coming out from a George Formby picture and one said: "Formby wasn't up to his usual standard" and the other replied: "Well he can't keep on making up funny things." On the other hand the so-called intelligent section of the public thinks that a good film is made entirely by good direction. I feel the people most responsible for this mis-carriage of justice are the press. For years now they have praised everything the director has done. They have rushed into print every pompous statement that has dropped from the director's lips. But they are not the only ones to blame. Until quite recently the producers believed that directors were the most important persons in films. The renters also believed that directors were the life-blood of films. There obviously must have been a reason in the first place for all these people thinking the director was the most important person in films and it might be interesting to go back a few years and try to discover the reason. When I first entered the business in the last year of silent films, film direction was a mystic art which only the anointed were allowed to practice. Directors were the uncrowned kings of filmdom. The writer's position was quite another story. He was looked upon by all but a few revolutionaries as a kind of "studio pest." I remember when I first went to Elstree I was put in an office about 10ft. x 6ft. with two other writers, one of whom kept walking up and down the office dictating a story for another company, while the other went to work on the Midday Standard.

In spite of this scripts *were* written, but all directors did was to jeer at them, throw them aside and proceed to shoot something entirely different which came to them in a series of inspirations on the floor.

So it was back in those days the director really became the big noise in pictures. But what happened when sound came? The whole bag of tricks was thrown up in the air. A lot of young men came into the studio with loads of sound apparatus tied up with string. They told the director that he could no longer shout at the artistes on the set, and that the star must wear flanelette underwear so that she would be receptive to sound. The nonsense that was talked about sound at that time was unbelievable. What was even worse for the director, for the first time in his life he had to keep more or less to his script, but perhaps the crowning blow of all was the "dialogue." At first the director attempted to overcome this by rewriting the dialogue himself on the floor. I remember a story told by a well-known playwright. He was engaged as dialogue supervisor by a studio and was sitting in conference with the producer when the director of the film burst into the room. He explained that the ship was sinking and that the Captain had just informed the passengers that there was no hope. He wanted a dramatic line to get the captain off. The producer after about three minutes' deep thought looked up and said "What about 'Well—I'm off'?" After another long pause, the director said: "No—just 'I'm off'."

Soon after this the producer began to realise that the dialogue devised by the director on the set was very much worse than the dialogue written by the scriptwriter and

RTANT THAN GOOD DIRECTION ?

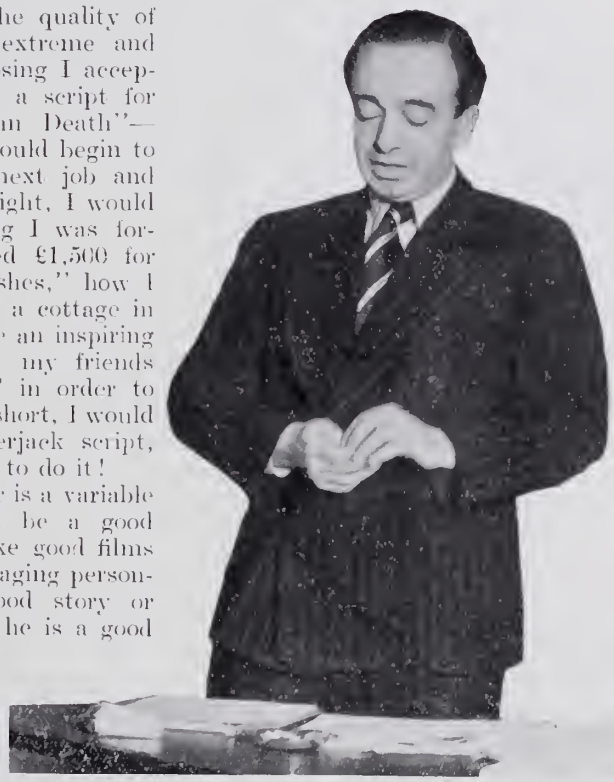
R EVIL OF THE TWO," said Anthony Asquith, taking writers Association and the British Association of Film the director mangled my script, changed my dialogue, on the other hand, as a director, I have found that the speakable dialogue, unshootable shots, and when on the had the nerve to complain.

ADRIAN BRUNEL
(Directors)

FRANKLY, I find it difficult to assess the relative importance of the script-writer and the director. I certainly do not agree with the assessment that is reflected in the salaries paid. I can recall cases of script-writers receiving £200, while the director got £2,000 - which is fantastically out of proportion.

I have known of scripts that have been so good, that no director, however bad, could spoil the designed effect. But such scripts are rare, for the simple reason that we do not encourage scenarists to write masterpieces, since we pay them as little as possible.

I have written a number of scripts and will confess that the fee I have been paid has always effected the quality of my work. To take two extreme and imaginary examples—supposing I accepted a commission to write a script for £200 entitled "Worse Than Death"—after three weeks work I would begin to start worrying about the next job and since my script *seemed* all right, I would turn it in. But supposing I was fortunate enough to be offered £1,500 for writing "The Yankee Vanishes," how I would work! I would take a cottage in the country, I would engage an inspiring secretary, I would shower my friends with lavish "reading fees" in order to check up on each draft—in short, I would see that I wrote a crackerjack script, even if I had to pay others to do it!



The value of the director is a variable factor. A man may not be a good director at all, and yet make good films—because he has an encouraging personality, because he is a good story or dialogue-writer, or because he is a good editor.

What I mean by being a good director — in the sense that he is able to induce the artistes to create and interpret, and weld the bits and pieces into a composite whole—is best illustrated by the work of two theatre directors—Michel St. Denis and Noel Coward. There is always something about their direction that stamps their their productions and makes it entirely different from the results of another director's work on the same script.

The extent of a director's contribution depends on the quality of the script from which he works. If the scenarist is just a good story writer and does not put on to paper a complete and exact visualization—shot by shot—then obviously the director has to make up this deficiency and *does* contribute more than he would otherwise have done.

Some directors prefer to have their scripts in what they call "master-scenes" and then to develop them on the floor, as fancy and inspiration take them. It is a very insecure and uncommercial practice and in my view would only be justifiable if shooting a film were as cheap as writing a novel.

Another reason why scripts are delivered incomplete and in master-scenes is that they are easier to read. Producers, financiers and distributors are more amenable to making a quick decision if the script is simplified for them, for they are liable to become confused by a properly split up scenario and inclined to say, "Seven hundred scenes—much too long!"

If I were a producer or a film financier, I would *insist* on every picture I made being described in such detail that I would have on paper a description as near as possible of what I expected to have on celluloid. I would plan on paper every battle I expected to fight on the floor—and my experience convinces me that with such a policy, we should win at least nine out of every ten of our battles.

In all this preparatory work, the director has a definite place and responsibility. His function should be to advise the script-writer at various stages, to suggest, to edit, to encourage, to criticise and to appreciate. An ungenerous, jealous and ungrateful attitude from the director to the script-writer is suicidal. Some directors have built up their reputations by picking other people's brains — and why not? But the director who is mean and does not acknowledge the service of his collaborators will soon freeze off enthusiastic helpers.

In brief, I would say that a good script is the first essential—and a proper reward for this is a necessary corollary. As to the amount of this reward, obviously the director's job lasts longer and his responsibility is greater—but it is time producers realised that if they want

FRANK LAUNDER (*Screenwriters*):

he started by asking the director if he would mind shooting the dialogue written in the script. The success of this new experiment set the producer thinking, and after another three or four years had passed it struck him like a flash that the author's script might be better than the director's, which brings us roughly to the present time.

Most producers now insist that the script is shot in every detail. It may be said by the directors that the scripts of the most successful films have not all been good scripts—that they needed good directors to turn them into good films. All I can say is I have never yet seen a bad script turned into a good film—and I have never yet seen a really good script completely ruined by a director. It might be interesting to turn to the stage for a minute and see what affinity there is between the theatre and the screen. The technique of the stage is different from the technique of the film, yet artistically there is great similarity. Perhaps what is most dear to the hearts of all authors—they are paid more than the directors on the stage. Again the authors receive more credit. Sometimes their names mean more than the names of the actors and actresses. Authors have much more say in the theatre. They have a hand in the casting and are responsible for any alterations made in their plays. The status of the director on the stage is very much lower than the author's and his name seldom appears anywhere except in the programme.

The situation in films is very different. I do not think there is a screenwriter whose name is known to the general public, whereas there are a number of directors whose names mean something to a section of the cinema public at least. Yet a film director today contributes no more to a film than a stage producer does to a play!

A stage producer has four weeks in which to produce a play, rehearsing his artistes, putting in touches of characterisation and business until he finally sees the play as a whole; then he can trim and shape it until he feels it is right. How can this be done on a studio floor when the film is often shot in scenes starting at the end of the film and working backwards? The answer is, it *isn't* done: the trimming and shaping is either done before the film goes on the floor by the writer and producer, or afterwards by the film editor. Surely we come to the conclusion, therefore, that apart from one having more practical opportunities than the other, the film director's job and the stage producer's job are very much alike. If this is true, then why should the author's position be so much more important than the director's in the theatre *and not* in the cinema?

The position of the script writer is not yet sufficiently appreciated in this country, but I feel it is simply a question of time before it is recognised that not only is the writer more important that the director in films, but a good script is more important than good direction, good camera-work, art-direction and everything else bundled together. So after that, in the words of the director, "I'm off."

The Secretary of the Cinema Christian Council, Mr. T. H. Baxter, has resigned to take up his appointment as Secretary of the Religious Film Society and of the new company, Religious Films Ltd.

ADRIAN BRUNEL (*Director*):

to make successful pictures, they must give the script-writer more time and more money.

The great directors of the past were always their own producers, in the sense that they chose their stories, their writers, their stars and other collaborators themselves. There was a nominal producer, but he was the servant of the director.

When this was the accepted policy in Germany, the producer realised that his director was an asset and could have a public, and in consequence he advertised him. And those were the big days of German films. Apart from selfish reasons, I honestly believe that such a policy of establishing and advertising producer-directors would be one of the means for re-establishing our industry. And I would go further—I would advertise the author. If Bernard Shaw, Shakespearse, Milne, Somerset Maugham, Priestley, Arlen and a host of others can be "box-office" to the theatre, I think they could also be to the cinema. I do not accept the argument that they never have been, and suggest that advertising our producer-directors and our writers—as well as our stars—is one of those new angles that might well contribute to the solution of our problem in re-establishing British films.

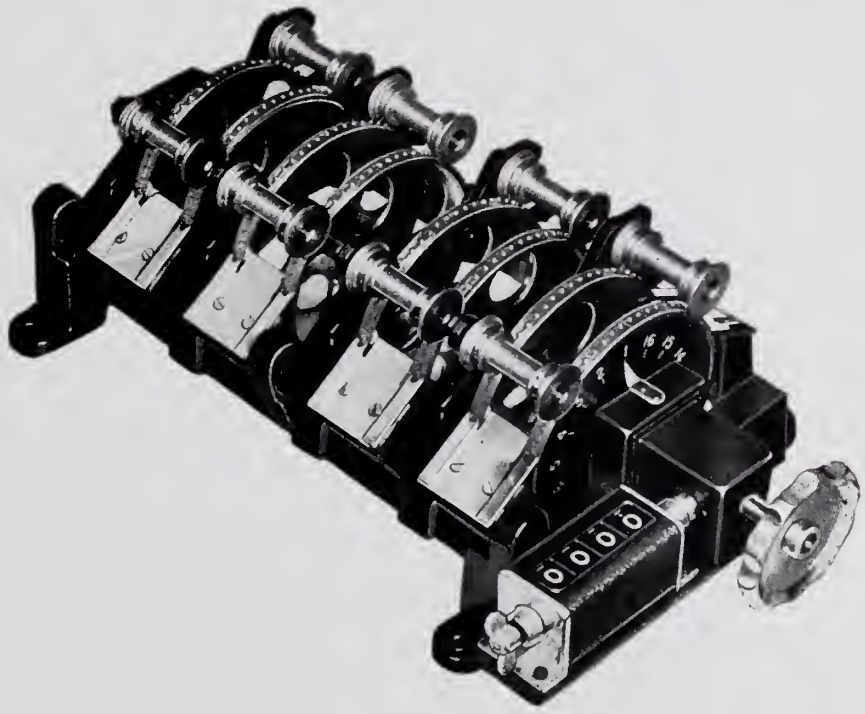
DISCUSSION

BRYAN WALLACE thought co-operation should be the keynote—writer, director, and producer should form an entity, co-operating in all the details of production and in the industry as a whole. *LESLIE ARLISS* agreed —it is madness that any script should go on the floor unless the writer and the director have thrashed out every situation and seen eye to eye. *IVOR MONTAGU* also agreed that close collaboration at every stage was the only possible solution; although one of his best scripts was turned into a very good film by a director who never read the script because he couldn't read English. The author of a story from which a film is made is paid a very large sum of money because the producer is prepared to pay in order to get a well-known name. If the screenwriter has not already made his name, the only way to make himself recognised is by producing something the producer wants and giving it to him only on the screenwriter's own terms. *MILTON ROSMER* agreed that co-operation was the secret. But it should be extended. An exhibitor had complained to him that there is no other business in which the person who has to handle te product is not consulted at all; the exhibitor is never consulted. Too many producers tend to forget about their pictures once they have been shown. They do not know or care what happens to their product.

MICHAEL HOGAN, on the other hand, deplored the talk about collaboration. A film writer need not necessarily have anything to do with the script to be a good director. He need only take a script, provided it is a good one, and make a good job of it. The inefficiency of directors is balanced by their egoism. The stage director has no such position. He merely takes a completed work made by somebody or other and puts it on the stage. He does not re-write the play in the theatre. And a film director should get it clear in his mind that he is the man who has to direct something which is given to him. *J. B. WILLIAMS* thought, given a good script and no

(*Continued on page* 200)

FOUR-WAY SYNCHRONISER



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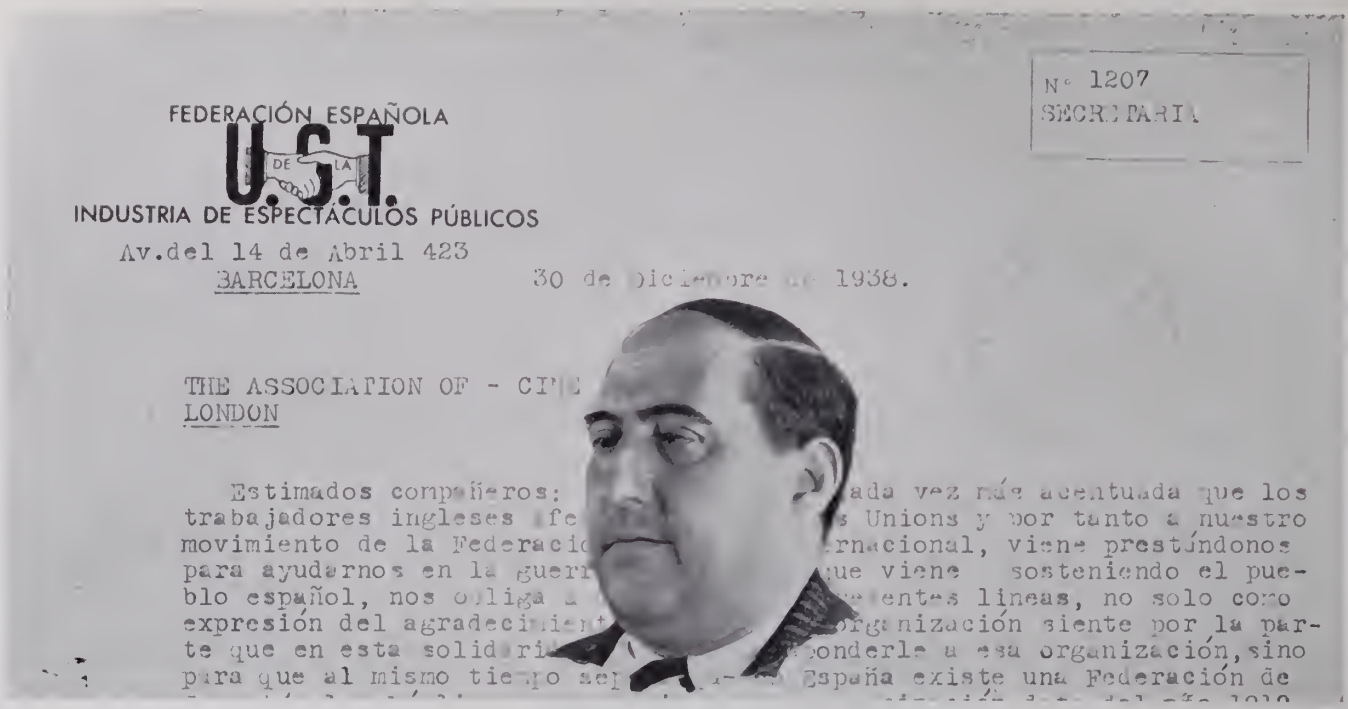

FEDERACIÓN ESPAÑOLA
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Av.del 14 de Abril 423
BARCELONA 30 de Diciembre de 1938.

N° 1207
SECRETARIA

THE ASSOCIATION OF - CI
LONDON

Estimados compañeros:
ada vez más acentuada que los
trabajadores ingleses fe s Unions y por tanto a nuestro
movimiento de la Federacio rnacional, viene prestándonos
para ayudarnos en la guerr que viene sosteniendo el pue-
blo español, nos obliga a entes lineas, no solo como
expresión del agradecimien organización siente por la par-
te que en esta solidari onderle a esa organización, sino
para que al mismo tiempo ac España existe una Federación de

Events have moved quickly since the above letter of greeting from the Spanish Entertainment Workers' Union reached the General Council of A.C.T. Catalonia has now fallen and trade unions, for the moment, are a thing of the past there. But the Union continues to function from Madrid, and the determination which Senor Pretel's letter echoes is still there. We can but admire it, and as trade unionists send our sincere good wishes to our fellow workers in Republican Spain. A translation follows.

Dear Friends,

The ever-increasing solidarity which English workers belonging to Trade Unions and so to the International Federation of Trade Unions, have demonstrated by the help they have given us during the invasion which the Spanish people are suffering, leads us to send these present words, not merely as an expression of regard from our organisation to yours (which corresponds to our own) but also because there exists in Spain a Federación de Espectaculos (Entertainment Workers' Federation) which dates from 1919, and which since that date has been affiliated to the I.F.T.U. through the Union General de Trabajadores (General Workers' Union) of Spain.

Our Federation covers all cinematographic jobs, not only in production, such as actors, directors, producers, operators, sound engineers, cameramen, make-up artists, carpenters, painters, electricians, cutters, examiners, etc., but also in distribution and exhibition, such as clerks, projectionists and other personnel.

Against our will, we find ourselves involved in a war of invasion in which we fight not only to defend our independence but also to maintain the successes which in 19 years of organisation we have won from our employers, who formerly had no scruples about enforcing a 14- or 16-hour day, with salaries that hardly covered one-third of the most elementary necessities of life, with no security whatever for the incapacitated, whether through age or sickness—until our organisation succeeded, through the National Corporative Organisation, in getting minimum standard conditions somewhat more humane.

To defend the maintenance of these gains, we have borne 29 months of war, in which we have seen fall beneath the guns of the invaders many valued comrades of ours, many wives and children of our members killed by the airplanes which Italy sends to bomb our civilian population. You may guess our determination to go on fighting until we win, and also our gratitude to all those who have gathered to our aid, sending us food to alleviate the increasing hardships of our rearguard.

We are glad to take this opportunity of establishing with you a direct contact such as we have with the workers of other countries, in order to consolidate even more firmly the bonds of friendship which unite us through our I.F.T.U.

The three times that I personally have been to London (the first time in 1936 at the I.F.T.U. Conference; the second another I.F.T.U. Conference on our war in Spain; the third to present a personal report on that war) would have given me an opportunity of greeting you in person, had not my limited tim been entirely occupied with the U.G.T. business that brought me to your city. But to-day, by express desire of my colleagues on the Executive of the F.E.P., and at the same time satisfying a wish of my own, I address these few lines to you, so that, however briefly, you may know of our organisation and of the vivid gratitude that the entertainment workers of Spain feel for your help, which we hope may be increased as much as possible, since it will help your brothers, the workers of Spain, to emerge victorious from this tragic conflict.

In the hope of your reply, which will give great pleasure to our members, I remain,

Fraternally yours,
In the name of the Executive Committee,
(Signed) FELIPE PRETEL,
General Secretary, Federación Espectáculos Publicos.

THE INDUSTRY'S FRONT PAGE

discussed by J. NEILL-BROWN

THE crisis—the Premier goes to Godesberg—Parliament reassembles—B.B.C. news bulletins in French, German, and Italian—last minute intervention—Munich—the qualified thankfulness of a world that can expect its Christmas in peace. Front page news in every corner of the world. Sleepless reporters each giving another angle on the events of the day. Newshawks of all political parties interpreting the news to suit their readers.

And along with them, in every corner where the events of the crisis were taking place, was another newshawk, but without the power to translate the news into the appropriate colour of individual parties—the newsreel camera. The Premier speaks to the people as he leaves Heston. The camera photographs, the microphone records. Just that and nothing more. And because the public were excited and wanted to see just that, the busiest cinemas in London during crisis week were the newsreel houses.

There are about 22 of these small 300 to 500 seater halls in the country, 16 of them in London. They are planned on the same more or less general principle, and though in most of them the news takes up short of twenty minutes of the hour's program, that twenty minutes forms the most important item of the program. During that week of the crisis they clearly demonstrated their position as the front page of the cinema in no uncertain manner, practically all of them playing to "standing room only" all day. Most of them find that the great public events of the day always increase the takings, and consequently it behoves us to look for a moment at this very important section of our industry.

In the first place it may be questioned why people should select a special news cinema in order to see the newsreel when they can see exactly the same news in the major halls and a couple of features along with it, to say nothing of a cartoon or a stage show. Well, it so happens that there still is a small percentage of the people of this country who do not like the pictures. They just would not go to an ordinary cinema for fear of mistiming their arrival and having to sit through two or three hours of Greta Garbo or Ronald Colman before coming to the item they want to see—possibly Lloyd George feeding his pigs at Churt or that hardy weekly item of the march past of a brass band. Indeed some people don't even like all of the newsreel and frequently phone up the news cinema and ask when does the news come on, and does the bit about the mayor opening the sewage works come at the beginning or the end and if so just *exactly when* will that be. Then they drop in and see that little bit and go out again. Such discriminating individuals form as much as ten per cent. of the news halls' clientele. The other ninety is drawn from the passing public, the folks who are in town for the day and have an hour or two to spare, too short to go into a full feature show and too long for a cup of tea. You will find most news cinemas managers very proud of the type of patron they cater for, not for them the ordinary sensation seeker of the west end, but rather the thoughtful "man-in-the-street," the artisan who takes an interest in public affairs, the educated man who wants to get an even broader outlook on current events than he can get from the daily papers. It is, in the main, the news without comment. And there are those who go so far as to want the news without the commentator. His is a difficult job, for if he is at all interested in certain aspects of public life, it must put a keener edge on his commentary to talk of those things. News cinema managers have told me that they can frequently tell the political opinions of a commentator by the enthusiasm he displays. Some managers would like their reels to be a little controversial so that they could then present more than one side of a problem to the customers and let them draw their own conclusions. But others regard

this as a dangerous practice and tend to avoid any political slant whatsoever. They usually make up their own reels from bits and pieces of others, taking good care to include only the sections that are likely to give no offence to any section of the audience. Their general policy is to do nothing to antagonise the Government in power in case it should bring a stringent censorship to bear on newsreels, which at the moment do not have to be submitted to the censor. Mention of the "bits and pieces" plan reminds me of a small objection I have frequently felt to their lack of foresight in this matter. It is nothing unusual to see a reel starting with the leads of the "G.B. News," followed by the leads of Paramount and having a section from Movietone as its first item. I cannot see why they should not have their own special lead, as they have at the Empire, Leicester Square, acknowledging the reels from which the excerpts are taken, and their own end title instead of what I once saw, four separate play-outs.

The fact that there are as many as 16 news cinemas in London and very few in the whole of the rest of the country tends to suggest that this type of cinema is only really suited to the metropolis. The experience of the London halls does tend to show that a very large floating public is necessary before even the small numbers that go to the news cinemas can be collected. It has been thought in some quarters that the news cinemas on stations, as at Victoria and Waterloo, would be excellent paying propositions owing to the large numbers of people to be found standing about the platforms at all times of the day. Personally I'd as soon open one at a football ground on the assumption that with so many people about it would be bound to pay. The folks who stand about the stations, however, are not there individually for long enough to make it worth while to spend an hour in the cinema. I should imagine that they only get to the station about five or ten minutes before their trains go. I notice that in the most recently published report of the trading profits of "Capital and Provincial News Theatres, Ltd.," the company that owns the two station cinemas mentioned, there is a net loss of £1,752, although they add later that the company's properties are now all paying their way.

Among the London news cinemas there are three within a stone's throw of each other that demonstrate the different ways in which these theatres can build up their own special public. At the top of Charing Cross Road is the "Tatler," which has specialised for a long time in a general sort of program, built up of about 15 minutes of news, a cartoon (sometimes two), an interest picture, occasionally a comedy, and nearly always a documentary. The last time I was there they were showing that excellent American documentary by Pare Lorenz, "The River," the finest thing of its type I have yet seen. Round the corner from it is the "G.B. Movietone" theatre, which is claimed to be the only genuine NEWS theatre in London. It shows nothing else *but* news, except a travel film now and then. They have a special reel made up for them by Movietone which includes all the items in the general release, and a lot more besides. Not only so but it is fuller on each point it deals with than the major cinema copy. The manager there tells me that he has the best and most intelligent audience in all London. It has been open continuously for eight years and during that time its programmes have been seen by no less than six million people. Back in the Charing Cross Road, but at the bottom end, is the "Cameo," which has built up a regular clientele by the showing of comedy as its main item. In the same week as I saw "The River" at the "Tatler" (and the hall was almost full at 3 o'clock in the afternoon), I saw the show at the "Cameo," which was running a program entirely made up (except for the news) of comedy shorts by M.G.M. who had won the Academy prize for the best continuous run of comedy shorts for the year. It was a fairly good program, though I considered that I had seen better individual shorts before. The hall again was about as full as the "Tatler" had been for the same time of day.

The "Monseigneur" circuit finds that a program somewhat like the "Tatler" is the most suitable balance. About 15 to 18 minutes of news, a single reel travelogue, a general interest film of two reels, a cartoon (usually Disney), and sometimes a comedy; and they say that that is roughly the order of public appreciation. If there were more news they would give more of their time to it, and if it were interesting enough to run the full hour they would leave the other things out.

In a short review of the situation like this it is quite impossible to deal with the problematic future of news theatres. They may expand, they may not. They may leave out the other shorts and concentrate on the news; again they may not. But whatever they do I hope they will continue to exist if for no other reason than for the use of the shorts producers. In the major halls the short is, as Wardour Street correctly puts it, a "fill-up." It provides a good opportunity for the boy-friend to get the girl-friend an ice, complete with spoon, which he usually drops on the way back to his seat and spends the time of the short under a neighbour's seat. In the news theatre it is regarded as of as much importance as the rest of the program.

The news theatre supplies an urgent need for the shorts producer in providing a place, indeed the only place, in which the short is really taken seriously.

IS A GOOD SCRIPT (*Continued from page 196*)

director, you could still produce a very good film, perhaps even a better film. But never in any circumstances could a good film be made, given a director and no script, not even with fifteen other directors to help him out. Mr. Brunel had said a script was no more than a story outline for the director to fill in. Doubtless there are scripts like that, but the usual script told the director in detail what he must do, and the best films are made from scripts of that nature. "*The Citadel*," and in fact all M.G.M. films are made in the scenario department.

If the only people remaining in the industry were one director and one script-writer (a position we are rapidly approaching) said *CAPT. NORMAN WALKER*, and if the writer fell ill and the director was solely a director who had never written anything in his life but had merely taken scripts and directed artistes, that director couldn't both write the script and direct it; whereas the script-writer, he thought, could successfully write his script and direct it himself.

SIDNEY MORGAN thought the difference in salaries was explained by the fact that the director has the spending of the money. He can spend money—or waste it. The scenarist can't. Also it is the director, after all, who has the last word. It is his judgment on the playing of every scene. *ROGER BURFORD* drew a contrast between what he called "homespun" and "machined" films. Some writers like taking a story away with them

and writing it without any interference from producer or director. These are the "homespun" workers who would really like to be making tweeds. But the commercial cinema generally turned out the "machined" product in which all the individualities have been ironed out. Even so, the writer sometimes shows rugged individuality. Ben Hecht, for example, always insists on six beautiful blondes sitting in his outer office. One day Myrna Loy came to see him, and he threw her out because she was not beautiful enough—he had mistaken her for one of the blondes. *GEORGE DEWHURST* felt that the director was in closer touch with the public than the script-writer. The director was in a better position to give the public what they want than the writer, his duty being nearer to the public. *BOB ASHER* thought the director and writer should be one person—and the writer of plays should leave the writing of scripts alone. If a man can write a story he should be able to direct it—and they should be one and the same man.

ADRIAN BRUNEL (summing-up for his side): I can see six directors here to-night—but all of them are also writers. I still stick to what I said—but I think there has been a misunderstanding as to what it was. I do not think I said that a good script was more important than good direction; what I was trying to say was that a good script is essential to a good picture. It has been said that a director could not manage without a script-writer and vice-versa. I am sure the six directors here to-night could manage quite well on their own and I am also sure there are some screen-writers who could manage without a director—but not all—I know one who was brought from Hollywood to direct a film here and he had to be taken off the production after two weeks!

FRANK LAUNDER: I am not going to say very much. The case has really been handed to us by the directors. There are three writers here at least who have been directors. One actually abandoned direction because he thought writing was by far the most important branch of film production.

It seems to me that whichever way you look at film direction it is the translation to the screen of the work of an author. Therefore direction can only be at best a contributory factor in film-making. It can be, I know, a very important factor but *only* in the sense that it interprets something which has already been created . . . and the work of creation is the real basis of any form of art.

Conductors come and go, but the work of Beethoven lives on . . .

Nobody even knows who produced Shakespeare's plays—of course it might be pointed out by directors that nobody even knows who wrote them either—but at least this question has aroused a great deal of interest, whereas the question of who directed them has never arisen. I think I might fittingly sum up the case for writers by a screen adaptation of the words of whoever wrote Shakespeare:—

"Great producers are born great—but not often; good writers achieve greatness; and directors—good, bad and indifferent—have greatness thrust upon them."

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The article in our last issue by George H. Elvin, "This Freedom," has brought many comments, of which we gladly print a selection

A. J. CUMMINGS

(of the News Chronicle)

Newsreels Will Lose Popular Appeal

I THINK the exposure of the censorship of the interview which Wickham Steed and myself gave to Paramount has already had a salutary effect. But even more sinister in my opinion than the Government pressure brought to bear on that occasion was the ignoring of the return from Spain of the British battalion of the International Brigade—one of the most impressive news events of the year. A few more instances of this kind of distortion of news values through political prejudices and the newsreel companies will entirely lose their popular appeal.

I have never been able to understand what I would call the unofficial censorship exercised by Lord Tyrrell and his staff. It seems to have no rational basis but is dictated largely by outworn social, class and political conventions.

ERNEST W. FREDMAN

(Managing Editor, Daily Film Renter)

Losing Ground With Younger Generation

I BELIEVE in the freedom of the screen just as I believe in the freedom of the Press. No doubt some restrictions are necessary upon both—but the restrictions should be equal, and tempered with common sense and a progressive outlook. If the film is to continue to progress, it must keep abreast of public opinion—but if we are to have constant restrictions imposed by people most concerned with holding to the ideals of their grandfathers, then clearly we shall lose ground.

I am concerned with the fact that the legitimate stage is apparently at liberty to discuss in an intimate manner social matters and aspects which the film producer dare not hint at. If we continue with such a disadvantage as that, we must inevitably lose ground with the younger generation.

There are, of course, other detailed aspects of censorship, such as, what constitutes offence to public morality; but on this point I believe you may safely leave it to the average citizen, who will be the first to object to anything really unpleasant. I think the present British Board of Film Censors performs a difficult task in an excellent manner—and if, on occasion, they make rulings which are irritating, or dated, we must console ourselves with the thought that whatever kind of censorship is imposed it must always be open to criticism. At some time or another it *must* clash with a different point of view.

What is most important in this question of freedom is—that the screen remains free from *political* influence. That is the most dangerous, because it is the most insidious, and, carried to extremes, will create for us a film so insular as to be futile from the point of view of our own culture, worthless as entertainment, and impotent as a means of propaganda. In other words, undue political influence will create the same kind of film as we are now seeing from the totalitarian states.

Of course, it would be ideal to be free of censorship of any kind—but I am afraid that is impossible. We have to decide whether we are content with the British Board of Film Censors, with its politely worded requests—or whether we would prefer the more authoritative rulings of a Lord Chamberlain, whose instructions might well be delivered five minutes before the first night—by a policeman in uniform—or his equivalent!

GEOFFREY MANDER, M.P.

Pro-Fascist Bias

I HAVE read with great interest Mr. Elvin's article in your last issue, on the subject of Film Censorship, a matter which I raised in the House of Commons before Christmas. I am sure that the subject requires constant vigilance, as there undoubtedly exists a form of political censorship exercised by the British Board of Film Censors. While this is a trade body, it has constant contacts with Government Departments, and any matter affecting a Minister or his department is referred to them usually before it is passed.

There is a strong pro-Government pro-Fascist bias in the decisions of the Board, as is shown by the fact that all the "cuts" in "*The March of Time*" film and others, have been to prevent the showing up of such things as the intervention of Germany and Italy in Spain.

I have made a point, during the last month, of seeing as many Newsreels as possible, and am bound to say it seems to me that no exception could be taken to the way in which news was treated.

The attempt to bring sub-standard films within the provisions of the 1909 Act, should be strongly resisted. It is another attempt at censorship.

ALD. JOSEPH REEVES

(Secretary-Manager, Workers' Film Association)

Illegal Interference With Sub-Standard

WE cannot publicise too much the insidious attempts being made to use an Act of Parliament for a purpose for which it was never designed. The 1909 Cinematograph Act was designed primarily to protect the public from fire risks in halls and theatres where inflammable films were being exhibited. Licensing Authorities and now the Trade Film Censor endeavour to use the provisions of this Act for the purpose of preventing the exhibition of films which challenge the conventions.

Recently, I had the rather humiliating experience of being told by the Trade Censor that a mother suckling her child was not a suitable subject for public exhibition, and that the word "filthy" used in describing slums in Poland was an objectionable word which would have to be deleted if a Certificate was to be granted. For my part, the suckling of a child is one of the most natural things of life and no one should be ashamed to witness such an act, not even a child, and it is nothing more or less than sheer prudery to wish to suppress such a picture. And, if the word "filthy" does not describe some of the slums of our modern life, then it seems to me the authors of the Oxford Dictionary need to commence a new compilation.

The interference which certain parties are exercising in the exhibition of non-inflammable films is nothing short of illegal action. There is no legal form of censorship of these pictures whatever, and my advice to organisations desirous of showing films is to challenge the Local Authority. The National Council for Civil Liberties has expressed its willingness to provide legal assistance in such cases.

There are two reasons why it is desired to introduce special legislation governing the exhibition of sub-standard films. There is first, the trade, which looks upon the sub-standard picture as a competitor. This is of course ridiculous, as the type of picture made on sub-standard stock is entirely different from the entertainment picture or the commercial theatre. In my view, the sub-standard film is an asset to the trade, because it creates film-mindedness among people who rather despise the commercial film.

Then there is the Local Authority, which likes to think that it has been appointed to protect the morals of the people. It is the public which needs protection from narrow minded obscurantists. Those who value freedom must fight with all their might against any interference with the freedom of showing sub-standard films.

D. N. TWIST

(Film Editor and Screenwriter)

Erroneous Standard of Box-Office

I HEARTILY endorse your plea that British films cannot be expected to make any real headway until they are relieved of stupid censorial restrictions.

There is however another restriction which is holding us all down and which merits the attention of your competent pen. I refer to the completely erroneous and glib standard of "Box-Office" which is always on the lips of executives, distributors and exhibitors. The public *are* prepared to be interested apart from sheer spoon feeding of treacle, as witness the enthusiastic reception of many documentary shorts, and, more recently, such films as "The Citadel." Judged purely on its merits as a story, its construction, its cinematic value, it undoubtedly left much to be desired but because it had something to say and tried to say it, it has rocketted to the top of the moneymakers. Need one say more? There are plenty of other instances.

CLEMENT J. BUNDOCK

(General Secretary, National Union of Journalists)

Suppression of Inconvenient Criticism

I READ "This Freedom" with great interest. It seems you are up against a problem very similar to that which confronts journalists at the present time. The method of complete control of all forms of expression which exists in certain countries in Europe is infectious. The suppression of inconvenient criticism is, of course, a great temptation to all Governments, and though I hope it will never be possible for a British Government, of whatever colour, to apply the muzzle as it is applied in Germany and Italy, I have no doubt there are certain people in high places who would like to be able to do so.

But as you have shown, and as we have experienced, there is a way not so clumsy by which a great deal of unwanted opinion can be blanketed and a good deal of desired information emphasised and widely publicised. It enables the authorities to declare with truth that there is no censorship but it is more effective because the operation of censorship is obvious.

It was very clearly revealed in the answer to questions in the House of Commons which you quoted: "The Foreign Secretary spoke to the American Ambassador who spoke to the Managers of the Paramount Company"—

and the thing was done. That can be applied to the films and to the newspapers, and if the hint is not taken there is more than one way in which things can be made awkward for those who decline to take it. It is a form of influence difficult to fight but you and we must fight it.

RONALD KIDD
(Secretary, National Council for Civil Liberties)

Totalitarian Frame of Mind

RECENT attempts to suppress unwelcome criticism; the deflection of the Official Secrets Acts from the purpose for which they were passed by Parliament; frequent interferences with the March of Time films and the censorship of a Paramount News Film in which Mr. Wickham Steed, the late editor of "The Times" and Mr. A. J. Cummings, of the "News-Chronicle," criticised government policy—these and other incidents show the steady development of a totalitarian frame of mind which seeks to undermine that freedom of expression which is the foundation of the successful working of democracy.

My Council has recently given evidence before the Home Office Advisory Committee and has advocated that films shall be subjected to no more censorship than newspapers and books. My Council has played an active part in fighting the attempt of the Home Office to introduce new so-called "Safety Regulations" which would have the effect of bringing the non-inflammable sub-standard films under the control of the British Board of Film Censors.

In 1935 a representative of the Cinematograph Exhibitors Association admitted that that body had been making energetic representations to the Home Office to induce that department to bring their non-commercial rivals under control. The solicitude of the Trade for public safety is not impressive. A non-flam film show is no more dangerous than a magic lantern show. Moreover, the *moral* safety of the public, for which the Board of Film Censors is so anxious, is fully protected by the operation of the existing law, under which any film of an obscene or seditious character can be prosecuted.

Let us de-bunk the pretentions of the C.E.A. and the B.B.F.C. and let us have a frank admission that control and suppression is what is aimed at.

ADRIAN BRUNEL
(Film Director)

Tells Us What To Do

WE have not only to stand firm against further encroachment from official quarters, but we must insist on greater freedom for British films. If we could have a Third Certificate for grown up adults, wherein we have at least the same freedom as they have on the stage, there might be some encouragement for British producers to make a special type of popular, intelligent, entertaining and worth-while product for which there is a vast public waiting. Just as British producers have established themselves as the best documentary film makers in the world, so I believe that we could create a large and valuable market with Third Certificate productions.

It is not necessary for me to give further examples of the ridiculous anomalies in our film censorship. Technicians know the facts, and if they agree with my suggestion for a Third Certificate, which would give us greater freedom in choice of subjects and treatment, I beg of them to agitate for this. Will they write letters (or postcards) to me, to the A.C.T., to their M.P., to the papers, and to the Films Council (c/o Board of Trade, Whitehall, S.W.1.)? If they feel particularly energetic, they can write to the British Board of Film Censors also.

Since nearly all of us are out of work, we have at least time to spare for all such efforts to improve conditions in our industry and to create fresh opportunities for British technicians. And don't forget, individual action can have a great deal of effect. An organisation like the A.C.T. is invaluable and essential for certain collective work, but a petition representing a thousand people only takes five minutes to digest and to be thrown into the waste-paper basket. But if half those 1,000 people writes individually, it makes a big impression. The slogan of the Active Democrats is "Be Active as Individuals"—and I suggest that if we did a little less talking and twice as much doing, as individuals, we would not only achieve a great deal by this direct effort but would be strengthening the hands of our various associations. They cannot do all the work, and while they are busy carrying out as many of your wishes as possible, instead of waiting for the next General Meeting when you issue fresh instructions, you can help by working on your own.

It is not much to ask—a letter or a postcard a day—not only on what I have suggested but on the state of the British film production industry, its control by foreign influences, the vital and national importance of an active and virile British film industry.

Agitate—write—speak—study—and don't be afraid. Fear, apathy and inactivity have been the curse of the modern world in the realm of international politics and those same failings are the curse of the British film world. Anything great that British people have achieved has been done by fearless pioneers. This spirit exists in our country today as flamingly as ever it did. It only needs a little encouragement and once we get going, we'll win through.

400,000

(Continued from page 180)

Lamp forming part of the Dufaycolor light source is inclined to vary in emission. This printer is equipped with a photometric control to enable the Printer operator to check the light emission from the Mercury Vapour lamp during printing. The apparatus consists of a photronic cell mounted integral with the Printer lamp-house, and a micro-ammeter in circuit with this cell. A hand-wheel control resistance in the Mercury Vapour lamp circuit is also part of the system. The use of the apparatus is as follows:—At any time the operator pulls out a knob on the front of the lamp-house, this action opening a shutter which exposes the photronic cell to the light of the Mercury Vapour thus causing a current to pass through the micro-ammeter. The latter instrument then shows the emission of the lamp and if any variations occur from the predetermined setting the variations are compensated for by the use of the wheel control on the lamp resistance. The whole of the apparatus is mounted on castors enabling the machine to be moved easily at will.

CINEMA LOG By KENNETH GORDON

A Polished Box-Office Job

I had great pleasure the other night in seeing "The Ware Case" at the Leicester Square Odeon. What a fine job Robert Stevenson, the director, and Ronnie Neame, the lighting cameraman, and the rest of their A.C.T. crew have made of this film. There must be tremendous co operation at Ealing Studios to have turned out such a polished job of work.

Just another British film playing to box office capacity at its pre-release in the West End.

Don't Let Expeditions Tempt You

With every depression in the film industry has come a crop of offers to unemployed film technicians, more especially cameramen, to join strange expeditions which propose to travel to their destinations by strange ways, and, if ever they arrive at the destinations, to record even stranger happenings only known to the expedition's organisers.

One thing about all these heaven-sent opportunities that is not now so strange is that the cine technician will be offered no wage for months of work, facing unknown dangers. If he is young and fairly green to the ways of the world he will be asked as a condition of employment to supply a cine and still camera, "and just a few thousand feet" of negative stock. If by this time he has not turned a deathly green, a hint may be made that if his friends would like to help with a little finance, say "a few hundred pounds," his chances of obtaining the job will be much brighter. It will be explained by the charming people he is talking to that here is his chance of making fame and fortune.

Another type of job in the offing is a world tour with monied people. They will, of course, find the finance for the stock and camera, but wages will be a share in any profits accruing from the film.

Well, no matter how hard up you are, I beg of you to turn down jobs of this nature. In the first type I have mentioned, you will always be in trouble, may even have to be brought home by the British Consul. You will have no protection in case of illness or death. The cameraman on these jobs is always blamed for everything that goes wrong, and when funds run out his camera gear is the first asset to be deposited against unpaid hotel bills. And when he eventually arrives home he will find that any funds obtained from the sale of the film have been eaten up by the preliminary expenses. Wardour Street will have forgotten him while he was away, and he will find all that he has left is a number of heavy debts to meet.

If a technician goes on the "monied" trip he will find that he will be treated as a lower servant—without pay. His wishes in connection with any filming will be subservient to the "big shot" who is running the show. Of course the result will be that any film obtained will have no entertainment value. Therefore he will have no monies on his return. These people, having considerable influence, will blame him for the unsatisfactory commercial results. No consideration will be given to him by the trade for the hopeless conditions under which he has worked, and more than likely it will take him a number of years to rebuild his technical reputation.

I and many of my dearest friends have had some! So to all enthusiastic technicians with an urge to travel, see that if you are offered a job abroad you get good wages, to be deposited at your bank before sailing; a return ticket handed to you personally; a first-rate insurance policy in your name covering you against sickness or death; a good kit allowance so that you can mix in the best circles and feel properly dressed; and a fool-proof contract deposited with the A.C.T. solicitor. Only under these circumstances is it safe for you to travel abroad.

Courtesy: Low and "The Evening Standard"

NATIONAL SAVINGS HOLIDAY SCHEMES

Wide attention has lately been drawn to the schemes put forward by the National Savings Committee for the encouragement of saving for holiday purposes. The schemes have been adopted by a large number of firms in many trades. One of the main reasons for this success is the fact that they have been given commendation by many important Trade Federations; amongst them the Coal Mining and Mining Association, the Engineering and Allied Employers National Federation, and the Iron and Steel Trades Employers Association. Similar action has been taken by certain leading Trades Union.

Really Sound Proof

At Witton is a sound proof building in which scientific investigations into the causes of noise are investigated, the noise measured and standardised. This is mostly in connection with electrical machinery, and the measurements of the various sounds are recorded in pitch and volume, which together make up the total noise.

The building is cubical in form and weighs about 80 tons. It rests on a large number of rubber blocks at each corner, which in turn rest on a heavy concrete foundation. These rubber supports provide insulation from soil-borne noises. Thick walls and doors keep out all air-borne noises. The interior of the building is sound proof and thus any measurements of noise made during the testing of the apparatus may be assumed as applying solely to the apparatus. This is just another G.E.C. service.

Rank and File

The official news that Mr. J. V. Rank has purchased the Amalgamated Studios, Elstree, presumably not for film production but to be let to Government Departments for the storage of files and documents, is a hard knock for film technicians to bear. Perhaps the powers that be consider the tower of this building to be a useful target should enemy aircraft cross our shores.

I wonder what Robert Clark, that needle-brained, slow-speaking shadow behind John Maxwell thinks. He had been seen looking longingly at the studios—no doubt working out what an asset they would be to Associated British Production units. His presence outside the building had given heart to the out-of-work technicians who had observed him.

As we go to press there is a strong rumour that D. & P. will close the Pinewood Studios. I believe a Government Department is considering their purchase.

New Mike

The cardioid directional microphone picks up equally all sounds reaching it from the front, but loses its sensitivity as source of sound comes from a position behind it. If a person talking comes closer to this microphone to compensate for this loss in sensitivity, as he walks round from front to back his path will be a heart-shaped curve or cardioid.

Because of this unique pick-up characteristic the device obtains its name. The directional properties are equally good for the lowest bass and the highest overtones.

In the case of recording a symphony orchestra, the individuality of separate choirs is often lost because the tones are masked by sound reflected from studio walls. With the cardioid microphone each group—basses, woodwinds, and strings—stands out clearly, the bass reproduction comes through clearly without a trace of "boominess" and the treble is clear cut; this is because more prominence is given to direct sound, and less to reflections for all ranges of the musical scale. Reflections from the walls are suppressed because of the "dead zone" behind the mike and because the wide angle of pick-up in front, vertical as well as horizontal, makes tilting of the device unnecessary. This is a Bell Laboratories invention.

Overheard in a Wardour Street Bar

"What are we doing this afternoon, boy?"

"Nothing, Sir."

"All right—go and get a dozen picture postcards and we'll make a short."

RENOIR (*Continued from page* 179)

After his speech, M. Renoir said, in answer to various questions :—

Sub-Titles

Sub-titles are a very different matter from dubbing. The film is left in its original form, and the sub-titles help the foreign audience to understand the dialogue and even to learn the language. I think that the use of sub-titles is the best means of securing free interchange of films between friendly countries.

Colour

The question of whether I like colour or not does not arise as it is obvious that in a year or two we shall be making films only in colour. So all we can do is to accept it and turn colour to our own uses as best we can. Personally I think that once we have taken colour out of the hands of the so-called technical experts with their awful ideas of "good taste" we shall be able to do fine things with it.

A Director Doing His Own Cutting

Whilst it is impossible for one man to do everything on a film, I am all against the various jobs being shut off from each other in watertight compartments. I am all for there being a real interchange and overlapping of ideas and influence between one department and another.

The 40-hour Week

I consider the recent success of the French cinema to be intimately bound up with, even dependent on, the 40-hour week. Before it, films were made in a hurry and a popular star such as Harry Baur, who is of course a very fine actor, was rushed through a film in a fortnight to get as many as twenty a year made with him as star. Under the 40-hour week films had to be made more slowly, which led to the discovery of new stars and new directors, and more pride being taken in the work. Of course various employers were against the 40-hour week from the start. Right at the beginning film stock made before the 40-hour week, and studio space built before the 40-hour week, were raised in price. There is at the moment a strong movement to get the 40-hour week abolished, and it would be a real tragedy for the French cinema if it succeeded.

His Future Plans

In the future I shall be working for the co-operative group I was telling you about. My next film is story of sex relationships called *"Les Regles du Jeu"* (The Rules of the Game). The story is set in a wealthy milieu so that the characters are free from material considerations and can be studied in isolation. The theme is that even in what appears a free and irresponsible society, all action and conduct is governed by strict and immutable rules, to break which is courting disaster and even death.

ADDITION TO LIBRARY

There has now been added to the library a copy of *"Motion Picture Laboratory Practice,"* published by the Eastman Kodak Company of Rochester, New York, and presented to the A.C.T. Library by Messrs. Kodak Ltd.

The book is a comprehensive one and should be very helpful to laboratory members, by whom it may be borrowed upon application to the office.

SUB-STANDARD (*Continued from page* 184)

tact printing is very popular amongst the amateur clientele, owing to the ever-present problem of maintaining minimum grain-size and over-all quality.

Although we do handle quite a large quantity of negative-positive work in 16 m.m., it is my opinion that this is not a really practical proposition for 9.5 m.m., and certainly not for the smallest gauge, 8 m.m.

The reversal duplicates are made on a special stock which has been evolved by the research laboratory of the Company at Antwerp (Belgium), and it is processed in the standard series of formulae, such as are used for the reversal originals.

So much for the purely laboratory side of the service. In addition, a title department caters for the amateur's needs in this direction. The bulk of the work is black-and-white, but quite a large quantity of titles are turned out on coloured-base positive for splicing into natural colour films. (It will be appreciated that titles on coloured-base positive provide a cheaper means of obtaining the same ends than shooting on the more expensive natural colour stock).

Coupled with these services, an Enquiry Bureau is also maintained. This Bureau deals with all enquiries relating to the use of the various stocks which we manufacture, and in addition answers are given to queries on camera set-ups for titling and cartoon work, simple lighting diagrams (with technical data) for work under artificial light, speed ratings of materials with different exposure meters, and similar associated problems which the amateur cinematographer has to face.

DISCUSSION

An interesting discussion followed Mr. Bowler's talk, and a selection of the questions and answers thereto are given below:—

Q.—Do you handle any sound on sub-standard stock?

A.—Probably not more than 0.1%, and up to the present this has been almost entirely confined to experiments by amateurs on both the variable-area and variable-density systems. Variable area is easier to deal with in the reversal process, as it is difficult to keep the gamma constant on successive reels of variable density.

Q.—Is it possible to get clear whites with variable area?

A.—Yes. By complete first development and reversing we can get a very clean track with well defined peaks.

Q.—Is amateur sound on separate films?

A.—Fortunately, yes. We have yet to deal with married prints by the reversal method.

Q.—Do you get a large variety of subjects?

A.—On the contrary—the bulk of amateur work can be divided into three simple headings: (a) Baby on the Lawn; (b) Weddings; and (c) Beach and similar scenes. There is a small proportion of serious documentary production and some film-play production.

Q.—Do you get much trouble with machines, and do you do any optical work?

A.—The three contact printing machines which we have (16 m.m., 9.5 m.m. and 8 m.m.) give very little trouble and are exceedingly reliable. We have no optical printing equipment, since the expense involved would not be repaid by the small demand for this kind of work on sub-standard stock.

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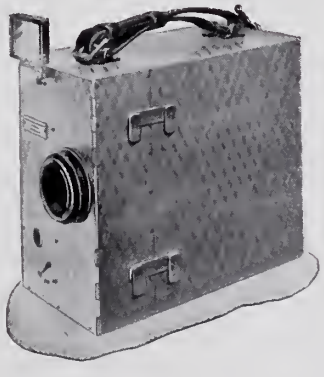

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PROJECTING BRITAIN

by

LEIGH AMAN

SOMEBODY asked me the other day what the words "Documentary Film" meant. I didn't know. I have asked several people since, and so far the only answer I have had is "Any film which is not an entertainment film"! This is hardly fair and the Concise Oxford Dictionary is no help, giving "Document—hence Documentary—prove by, provide with documents." However, this was all just a matter of personal interest since we all know what it has come to mean—a short film of general interest, usually without a fictional story. This is necessarily a vague definition but it will serve our purpose.

The aim of this article is to present what is being done in documentary films in this country with regard to their exhibition abroad, especially the U.S.A. It was inspired by the fact that New York and San Francisco are to have World Fairs this year and it seemed to me that films were going to play an important part in both of them. Here, it appears, is an unrivalled opportunity for Britain to show herself and her activities to our American friends. It is strange how little people know or care about any country but their own and how they believe implicitly what they are told. Margaret Halsey, writing about England in the latest American best seller, "*With Malice Toward Some*," says "The reason the English have more time is because they do things less thoroughly. They always stop before they have finished the job." Surely it is up to us to disprove statements such as this.

It is a fact that many countries, notably France, have produced special films dealing with their national life for the New York fair. At the time of writing it seems that, though our documentary producers are doing their best, they are not getting enough co-operation from those concerned. There is in existence a committee dealing with the question of Projecting Britain at New York. The chairman of this committee has said that a film will be suitable for the Fair if "it is a pleasure to look at and advantageous to Britain." This seems to be rather a vague definition.

To start with—to whom should it be a pleasure to look at? It has been proved many times that no film—documentary or otherwise—appeals to everybody and a World Fair will certainly attract every type of person. Should there therefore be a series of very short films to attract the casual passerby, or should there be special programmes arranged to show to selected audiences? We must here realise that the particular theatre in question unfortunately only seats 250 people—but I think that both types of programme could be used to advantage. First perhaps a series of short films and a constantly current newsreel—the whole programme last for not more than three-quarters of an hour. This would be changed twice a week or even more frequently to enable those returning to the Fair to see different films. On special occasions a programme of rather longer and more technical shorts for selected audiences. For instance—films showing our slum clearance, re-housing, new estates, garden cities, the L.C.C. (there exist suitable films on these subjects) would be shown to the New York City Housing Authority and representatives from similar bodies in other cities. These special programmes could be of immense value in increasing the understanding between the two nations. The committee, I am glad to say, have prepared a comprehensive list of American bodies and Departments with suitable films for each. It is to be hoped that full use will be made of this important work.

Now let us consider what films are "advantageous to Britain." First, the newsreel. This would show, presumably, events of national importance such as functions attended by the King and Queen (of especial interest as Their Majesties are to visit the U.S.A.), scenes of our everyday life—snow in Oxford Street—the Post Race—the Lord Mayor's Show—the King's Cup air race, etc.—all of which show us doing ordinary things but things Americans would not normally see (few of our newsreel subjects reach the greater part of America). An important item will be the preparation and dispatch of the newsreel. It would be necessary to have a representative committee of all the newsreel companies to select and edit suitable items. We hope that they will be sent to New York via the new Atlantic air mail service, if it is running by then.

For the remainder of our three-quarter hour programme, there are many suitable films. I could not mention them all, but to list just a few which seem to me to "Project" Britain: *North Sea, Night Mail, Islands* (a new G.P.O. film showing that we do live on an island), a new Ministry of Health film. *London on Parade, All That is England, Around the Village Green, Country Comes to Town, B.B.C.—The Voice of Britain, Weather Forecast, Roadways, Britain Today, Reporter in Soho.* These and many more will, it is to be hoped, be shown at New York.

With regard to San Francisco, there will be no British Pavilion here, but that does not lessen its importance. On the contrary, being comparatively near Hollywood, it will be even more important. The home of the picture industry has never had much to say for British films and I doubt whether most of them have ever seen a British documentary. This would be the time to show them.

In conclusion let us remember that the future of world peace is going to depend largely on the co-operation and understanding between the United States and Great Britain. Even though films may play only an infinitesimal part in this, nevertheless their importance must not be underrated. A film reaches more people than any form of distribution of knowledge and as such its power to influence the masses of the world's populations is great.

A carefully selected programme for New York and San Francisco will therefore go a long way to help in Projecting Britain.

HOLLYWOOD AWARD FOR A.C.T. MEMBER

We are very glad to announce that A.C.T. member Ian Dalrymple has won one of the coveted awards of the Academy of Motion Picture Arts and Sciences.

In the Academy's awards for the best work of 1938 that for the best written screen play is given to Bernard Shaw's "Pygmalion", and the award is made jointly to Shaw and to W. P. Lipscomb, Cecil Lewis and Ian Dalrymple, who adapted the play for the screen.

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by the National Trade Union Club. But, he went on to add, in spite of the success of "*Pygmalion*," many of the technicians engaged on it have found it impossible to get employment since, the company which made it has not yet made another film, and the studios at which it was made are now closed down.

From these facts he drew his moral. How is it possible to have a flourishing industry in which there is no continuity of employment for its best technicians ? He criticised the unhealthy situation in which the creator (the producer) can take the whole risk and yet be lucky if he gets 25 per cent of the box-office takings, middlemen absorbing the greater part of the profits. One British film, for instance, got into the American market—the ambition of all British producers. The receipts from America were two hundred thousand dollars **BUT** the bill for exploitation came to two hundred thousand and one hundred dollars! The method of business operation seems to have been a little, shall we say, unconventional.

Five years ago, hardly any technicians were in a union. Today, ninety per cent of them are organised, and what is more, are holding to their organisation despite the ravages of unemployment. In that fact was to be found, perhaps, our largest hope.

THE PRESIDENT GETS AROUND

RECENTLY the film societies of Liverpool and Ipswich have heard acute analyses from Anthony Asquith of the history of the cinema. That history, he considers, stars with pure movement (the Western and the D. W. Griffith "will-he-get-there-in-time" theme). Simple characterisation was added. Then the Germans showed how to express emotion other than through persons; while Chaplin concentrated on the relation of the content of one shot to that of another, and on attention to small details (what we of a later day call "Lubitsch touches"). But by this time the original intrinsic quality of movement was being lost. The Russians brought it back with their vigorous cutting and heightened it by their dual conception—movement within the frame *and* movement from shot to shot. Sound again changed our conceptions, and Asquith feels that there are two current fallacies—one, that the sound film should be a photographed play; two, that the best sound films should try to approximate as much as possible to the silent film, that is, that they must *always* have as little dialogue as possible. Both, he feels, are wrong.

At Ipswich he paid special attention to Alfred Hitchcock, whose characteristic manner of making films he thought derived from three sources—the German cinema in its golden era, Hitchcock's own pronounced personality, and the work of Chaplin. He did not think that the work of the Russians had had any influence at all on Hitchcock.

His talk at the Royal Photographic Society was on "Building a Star," illustrated by sections of "*Pygmalion*." Although, as he said, the technician could no more claim to have built Miss Hiller than Her Majesty Queen Mary could claim to have built the *Queen Mary*. All they had done was to break the bottle of champagne over her head and watch her glide, serenely confident, into the waters of stardom. He analysed the increasing importance of the actor since the early days of silent films, when the studio orchestra used to strike up a discreet version of Liszt's *Liebestraum*, the cameraman turned, while the director shouted "Come on, sweetie, give it me!" and she either gave it him or she did not. Since then it has been discovered how first the cameraman and then the editor can build a performance, the one by his arrangement of lighting or choice of angle, and the other by his intercutting of scenes in such a way as to give a required emotional effect which the actor's performance itself might have failed to achieve.

Alex Fisher, recordist, and David Lean, editor, were also present at the meeting to answer questions about their work on "*Pygmalion*," to which Asquith gave full praise, as an instance of the collaboration needed to produce a really successful film.

This essential co-operation he again stressed in his speech as guest of honour at a well-attended dinner given

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TECHNICAL ABSTRACTS

CO-ORDINATING MAKE-UP

(American Cinematographer)

One of the biggest problems faced by the cinematographer is that of co-ordinating make-ups. Make-ups of the present high standard can seldom be criticised individually but when considering the make-ups of several players in a production relative to each other faults may be found. It is, of course, possible to make tests of each important player with the star, but production conditions often make this impracticable. Gaetano Gaudio, A.S.C., has therefore evolved a system of make-up testing which rigidly pins each test to an absolute normal of illumination and processing, yet imposes no restriction on artistic individuality in lighting or camera technique. The method involves photographing as a part of every test a graduated neutral scale of ten clearly marked divisions ranging from pure white at one end to black at the other. This scale receives the same amount of front light as the player being tested. This illumination is standard for all tests which can thus utilise this neutral scale and be developed to the laboratory's pre-determined normal standards of time and gamma. The prints are timed with reference solely to the neutral scale—simply keeping the white end of the scale a pure unclouded white and the dark end a positive black. **T. S. L-H.**

NEW FRENCH CAMERA

(La Cinématographie Française)

The chief points of interest in the technical section of this edition are the descriptions of the new Camereclair Studio Camera. Although it does not possess a built-in magazine, this camera evidently possesses a high degree of silence and needs no extra blimp. It has also a fully automatic parallax-compensated viewfinder. There is also an interesting translation of the discussion of the colour radiable properties of the low pressure mercury discharge lamp which appears in "Phillip's Technical Bulletin No. 9." **J.G.**

TELCO COLOUR SYSTEM

(International Cinematographer)

This article deals with the new Telco Bi-Pack process. The Telco system makes use of a bipack in which one half is panchromatic and is responsive to the reds and yellows and the other half is orthochromatic, responding to the blues and greens. After development the two negatives are printed on to a positive stock which is sensitised on both sides. During the process which follows the development of the positive, the whites are swollen and the troughs of varying depths formed by the blacks and the greys are filled in by a red gelatinous filter on the side printed from the pan negative and by a blue gelatine filter on the side from the ortho negative. These filters are then buffed down to the level of the swollen whites, these are then subjected to another swelling and the process repeated with a yellow gelatine for the pan side and a green one for the ortho.

The process in continuous and automatic, and one full length feature, "The Lure of the Wastelands," has been shot and completed. Excellent results are claimed with an increase of only 10 per cent over costs for black and white. The system is the work of Bob Hoyt and Leon Ungar. **J.G.**

READING INCIDENT LIGHT

(American Cinematographer)

Meters used in the conventional way, i.e., to measure *reflected* light, give an overall reading in terms of exposure and fail to give any indication of the specific value of "key lights" or balance. However, following the Technicolor method of reading *incident* light, Mr. Daniel B. Clark, A.S.C., Supervisor of Photography, 20th Century Fox Studios, found that by using a meter for direct reading of the key light from the position of the subject, ignoring the exposure calculator, and making daily checks between the meter readings expressed in foot candles and the printer light at which the scene was printed, he was soon able to predict on which light a given scene would be printed. On his last picture, "Five of a Kind", the entire picture was printed on two printer lights. **T.S.L-H.**

PHOTOGRAPHIC EFFECTS FOR "TOPPER"

(S.M.P.E. Journal)

This short article (Seawright and W. V. Draper) consists chiefly of photographs and detailed descriptions and explains fully and easily how the complicated though straightforward trick work was accomplished for this film. One of these, which was a new process, was the successful use of a split screen shot with back-projection. **J.G.**

MORE INSTRUMENTS NEEDED

(American Cinematographer)

Mr. Victor Milner, President of A.S.C., comments on the fact that although other branches of the industry have been adequately catered for in the way of measuring instruments, the cinematographer has been left out in the cold. He instances the Weston meter and the new G.E.C. to be on the right path but the millenium will only be approached when the meter gives a scanning angle corresponding to lenses most commonly in use, i.e., 40mm. and 50mm., whose horizontal fields cover 25 degrees and 30.8 degrees respectively. The ideal meter should also have an efficient hood and great sensitivity in the low intensity region. **T. S. L-H.**

DAYLIGHT KODACHROME

(American Cinematographer)

Professional Kodachrome film is now available balanced for daylight use in sizes up to and including 10ins. x 8ins. Identical in colour reproduction to the recently announced 35mm. Kodachrome film, Type B, this new film enables direct colour photographs out of doors. It can be used in ordinary cut film holders and any good anastigmatic lens properly corrected for transverse and axial chromatic aberration may be used satisfactorily. When this film, daylight type, is used in sunlight or light of equivalent colour temperature, no filter is required and a Weston rating of 5 is recommended. Average exposure in sunlight for an average subject is 1/25 sec. at F 6.3. **T. S. L-H.**

RECENT PUBLICATIONS

B.J. Photographic Journal, 1939. Henry Greenwood. 3/6

The Almanac was first published in 1859, taking on its present form seven years later; it can claim to be, if not the oldest photographic annual in the world, at least among the very early arrivals on the scene.

This year's publication is well up to the high standard which those of previous years have led us to expect. It can be divided into three sections: the photogravure reproductions of modern works, the articles, and lastly the advertisements.

The 64 pages of illustrations show the work during the past year of some of the leading photographic exhibitors. It is interesting to compare the pictures of this book with those of a few years ago; it seems that nowadays people are no longer afraid of making a photograph that looks what it is, and not a badly disguised painting, as was the fashion not so very long ago.

Under the heading of articles must be included the vast mass of chemical and optical data which is one of the permanent features of the Almanac. This year it includes a section dealing with the stocks available for cinematography and the various makers' processing formulae. The "Epitome of Progress" is devoted to new methods and gadgets for all the various branches of photography, whilst "New Goods" gives detailed information on apparatus which has come on the market during the past year; it includes cine-machinery, but this is mainly substandard.

Of the articles themselves, that by the Editor on sensitometry by inspection should be read by all serious photographers, and that dealing with colour filming, while intended for the amateur, contains useful tips for those who are still in the early stages of colour-shooting. It is very noticeable, going through this book, that colour is coming to occupy more and more attention.

The last section—the advertisers' announcements—constitutes an important part of the Almanac, for it is, in effect, a very elaborate catalogue of all the up-to-date equipment and material available in this country. If you want to buy anything photographic, and want some information on it, assuming, of course, that you are not in the film industry and consequently have some money, get a copy of this Almanac and it will tell all you want to know. As an up-to-the-minute photographic handbook it is essential to all photographers.

A. GRAHAM

(Other book reviews held over owing to pressure of space)

OLYMPIC DINNER AND DANCE

In our last issue we referred to the Annual Dinner and Dance of the Olympic Sports and Social Club, and gave credit to the very hard work put in by Mr. D. D. Milne, Honorary Secretary of the Olympic Sports and Social Club.

Mr. Milne points out to us that the function could not have been organised without the valuable help and co-operation of all his colleagues on the Committee, and he therefore asks us to make very clear that the function was not a one-man affair—it was team work which made the function go with such a swing.

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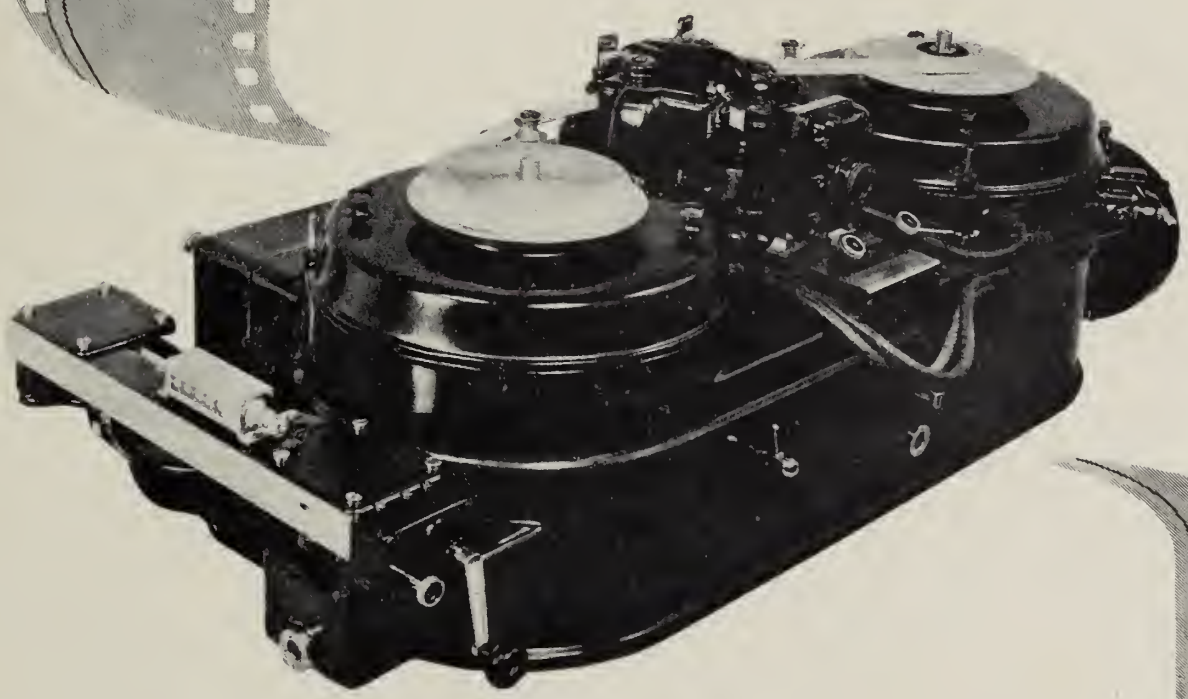

This 35mm. to 16mm. Precision Continuous Optical Sound Reduction Printer, has a single-phase synchronous motor with hand turning knob. The line and printing switch is interlocked with valve controlling the water supply for cooling motor and lamp. All gears run in oil. Mechanism is reversed by switch and is equipped with automatic control so that the machine will stop at end of footage at which the dial is set. Drive is automatically set for the opposite direction necessary when starting up after rethreading the positive, and machine stops if film breaks—no loops. A five figure Veeder Counter is incorporated.

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NO. 21 1939 MAY JUNE

P. H. DORTÉ
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BRYAN LANGLEY
PIGSWILL
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SURVEY OF FILM PRODUCTION STATISTICS

ANTHONY ASQUITH — A STUDY OF DIRECTION

Reprinted from "Kinematograph Weekly", 27th April, 1939.

A selection of Recent Productions made on . . .

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BRITISH PRODUCTIONS

	Photography by	Film Type
ADMIRAL FILMS		
Midnight Mail	Ernest Palmer	Plus-X
ANGLO-AMERICAN		
Secret Journey	James Wilson	Plus-X
ARGYLE-BRITISH		
My Irish Molly	Ernest Palmer	Super-X
ASSOCIATED BRITISH PICTURES		
Just William	W. Harvey	Plus-X
Poison Pen	Phil. Tannura	Plus-X
BRITISH LION		
Home from Home	George Stretton	Super-X
CHARTER FILMS		
Consider Your Verdict	D. P. Cooper	Super-X
Trunk Crime	D. P. Cooper	Super-X
EALING STUDIOS		
Let's Be Famous	R. Neame and G. Dines	Super-X
The Ware Case	Ronald Neame	Super-X
There Ain't No Justice	Greenbaum	Plus-X
Young Man's Fancy	Ronald Neame	Plus-X
Four Just Men	Ronald Neame	Plus-X
GAINSBOROUGH PICTURES		
Ask a Policeman	D. Williams	Super-X
GEO. SMITH PRODUCTIONS		
His Lordship Goes To Press	Geoffrey Faithfull	Super-X
It's No Use Crying	Geoffrey Faithfull	Plus-X
HAREFIELD PRODUCTIONS		
The Spy in Black	Bernard Browne	Super-X
Q Planes	Harry Stradling	Super-X
JACK RAYMOND PRODUCTIONS		
The Mind of Mr. Reeder	George Stretton	Super-X
The Return of Mr. Reeder	George Stretton	Plus-X
LONDON FILMS		
The Four Feathers	Georges Perinal & Osmand Borradoile	In Technicolor
MAYFAIR PICTURES		
Jamaica Inn	Harry Stradling & Bernard Knowles	Super-X & Plus-X
M-G-M BRITISH		
Good-bye, Mr. Chips	F. A. Young	Super-X
PENNANT PICTURE PRODUCTIONS (Geo. King)		
The Face at the Window	Hone Glendinning	Plus-X
R-K-O RADIO		
The Saint in London	Claude Friese-Greene	Plus-X
20th CENTURY FOX		
So This is London	Otto Kanturek	Super-X
Inspector Hornleigh	D. Williams and Phil. Tannura	Super-X
Shipyard Sally	Otto Kanturek	Plus-X
WARNER BROS.		
The Nursemaid who Disappeared	Basil Emmott	Super-X
A Gentleman's Gentleman	Basil Emmott	Super-X
They Drive by Night	Basil Emmott	Super-X
The Good Old Days	Basil Emmott	Super-X
Too Dangerous to Live	Basil Emmott	Super-X

AMERICAN PRODUCTIONS

	Photography by	Film Type
COLUMBIA		
Blind Alley	Ballard	Super-X
Plane No. 4	J. Walker and Meehan	Super-X & Plus-X
Old Mrs. Leonard	Stumar	Super-X
Prairie Nights	Siegler	Plus-X
Outside these Walls	Ballard	Plus-X
METRO-GOLDWYN-MAYER		
Idiot's Delight	Daniels	Plus-X
100 to One	Ruttenberg	Plus-X
The Hardy's	White	Plus-X
Lucky Night	June	Plus-X
Tarzan	Smith	Plus-X
Sergeant Madden	Seitz	Plus-X
Kid from Texas	Wagner & Lunden	Plus-X
Maiden Voyage	De Vinna	Plus-X
Within the Law	Lawton	Plus-X
Dr. Kildare's Mistake	White	Plus-X
Wizard of Oz	H. Rassan	In Technicolor
PARAMOUNT		
Gracie Allen Murder Case	Lang	Plus-X
Union Pacific	Milner	Plus-X
Man about Town	Tetzloff	Plus-X
Invitation to Happiness	Tover	Plus-X
Magnificent Fraud	Mellow	Plus-X
REPUBLIC		
Man of Conquest	August	Super-X
Street of Missing Men	E. Miller	Super-X
RKO		
They Made Her a Spy	Musuraca	Super-X & Plus-X
The Saint Strikes Back	Redman	Super-X
The Castles	DeGrasse	Super-X
Knight of the Ghost Town	Wild	Super-X
Picardy Max	Hunt	Super-X
What's a Fixer For	Hunt	Plus-X
Sorority House	Musuraca	Plus-X
ROACH		
Captain Fury	Bradine & Lloyd	Plus-X
SELZNICK INTERNATIONAL		
Gone with the Wind	Garmes	In Technicolor
20TH CENTURY-FOX		
Rose of Washington Square	Freund	Super-X & Plus-X
Stanley and Livingstone	Barnes	Plus-X
News is Made at Night	Palmer	Plus-X
Hound of the Baskervilles	Marley	Plus-X
Alexander Bell	Shamray	Plus-X
Susannah	A. Miller	Plus-X
Gorilla	Cranjager	Plus-X
Charlie Chan	V. Miller	Plus-X
20th CENTURY-FOX—*continued.*		
Cisco Kid	Clarke	Plus-X
Police School	Andriot	Plus-X
UNITED ARTISTS		
Wuthering Heights	Toland	Plus-X
UNIVERSAL		
Spirit of Culver	Bredell	Plus-X
East Side of Heaven	Robinson	Plus-X
Three Smart Girls Grow Up	Valentine	Plus-X
Risky Business	Cortez	Plus-X
Family Next Door	Krasner	Plus-X
WARNERS		
Gantry the Great	McCord	Super-X & Plus-X
Roaring Road	Hickox	Plus-X
Juarez	Gaudio	Plus-X
Hell's Kitchen	Rosher	Plus-X
Confessions of a Nazi Spy	Palita	Plus-X
Each Dawn I Die	Edeson	Plus-X
Nancy Drew, Trouble Shooter	O'Connell	Plus-X
American Family	Howe	Plus-X
Water Front	Van Trees	Plus-X
INDEPENDENTS		
The Prodigal Returns	Ash	Super-X
Los Hijos Mandan	McGill	Plus-X
Murder in the Surgery	J. Boyle	Plus-X
Everything Happens to Ann	Van Enger	Plus-X

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ANTHONY ASQUITH

[Portrait by Dorothy Wilding

LAST summer I went down to my old school and walking round the grounds after the cricket match I overheard the conversation of two beautiful young things, sisters of one of the boys, I suppose. One was saying to the other, "She hasn't got much time for dancing now—you see she 'does communism' two nights a week." Well that seemed to me typical of the amateur attitude so common nowadays. I am afraid if I am going to talk to you about film direction I am not an all-in wrestler or a footballer—I am only a film director.

on

A STUDY OF DIRECTION

A report of the President's lecture to A.C.T. members

MOVEMENT THE PRIME FACTOR

To go right back to the beginning of films, I think the thing that really fascinated us was just the fact that the pictures moved at all. To see a man eating an apple pie was a marvellous experience, and if, after he had eaten the apple pie, the process was reversed and the pie came out of his mouth and became whole again, our joy was complete. Movement continued to be the prime factor in the early pictures, of which I think the Westerns were the most popular type. All that was necessary for a time was for a beautiful heroine to fall into the clutches of the villain, usually recognisable by his twirled moustaches, and to be rescued at the last minute by the hero from what is usually described (quite erroneously I am told) as a fate worse than death. Well, after a time this type of action picture began to lose interest with the audience and it was found neeessary to make the actors more real to the audience and so hold their interest. It was about this time that D. W. Griffith invented the "close-up" and this, of course, immediately established a new and more intimate relationship between the actor and the audience.

THE SILENT DAYS

In the silent days if a director wished to convey an emotion to the audience what he did was to take a large close-up of the heroine registering a violent emotion, fear may be, and then if his leading lady was not adequate to her task he put in a title which described exactly what the heroine was feeling. The limitations of this are obvious, and I think that it is to the German cinema that we owe the next great step, which is seeing not only the heroine being frightened but also what is frightening her,

and by tricks of staging and lighting, such as double exposure, making that appear frightening to us. The Germans, then, were the first to show in a film what was happening from the point of view of the actors in the film. To take an actual example, you will probably all remember the famous film *"Cabinet of Dr. Caligari."* The film opens with a shot of a perfectly ordinary garden through which a man is walking. He sits down on a perfectly ordinary garden seat and gets into conversation with his neighbour. The film then takes up the thread of the conversation and we are transported to a completely unreal town where the streets are crooked, the houses set all askew, and so on, until we finally realise that the story is going on in the mind of a madman. And at the end it is revealed that the characters in the story are merely the hallucinations of the lunatic based on the doctor and other figures in the asylum where he is being kept. I tried to get hold of a copy of *"Caligari"* to show you, but apparently there is only one in England and that is too valuable to project, so I hope you will excuse me if as an example of this creation of an atmosphere by lighting and staging I show you the beginning of one of my own films, *"Cottage on Dartmoor."* This type of thing is all very well, but it meant that acting and the creation of character was kept on a very stylised and melodramatic plane.

The next advance was, I think, made by Chaplin in his film *"A Woman of Paris"* and there is one incident in that which illustrates very well what I mean. A boy and girl have been childhood friends and wish to marry but their parents will not allow it. Years after they meet again in Paris and the man goes home to the woman's luxurious apartment. In the middle of their conversation the woman opens a drawer and a man's collar falls out. There is a rather embarrassed silence, and they then take up the conversation where it left off. In this way Chaplin has perfectly expressed the shock of disillusionment of the man when he discovers that his friend is being kept by another man, and the way in which a man would naturally hide his embarrassment and carry on as if nothing had happened. This naturalism is far removed from the way such a scene would have been treated before. We can all imagine the dramatic attitude that would have been struck at the discovery. As another example of the way in which Chaplin used his shots economically for building up an atmosphere and building the story is his well-known film *"The Pilgrim."* In that the whole situation is established in three simple shots. First, a shot of a poster nailed to a door with a picture of Chaplin on it offering a reward for him as an escaped convict. Next, a man bathing in the river—he climbs out of the river and goes behind a bush for his clothes, but with disgust comes out with a convict's suit. Finally, a shot of a railway station—at the end of the platform a figure appears which can presently be recognised as Chaplin wearing parson's attire. In these three shots Chaplin has perfectly set the stage for his story. And what is important is not so much what each shot contains as their relationship to each other.

THE RUSSIAN METHOD

But now the Russians introduced a new factor—that is, rhythm between the shots themselves, based not only upon the meaning conveyed in those shots but also upon their length and shape upon the screen. To give an example, let us take a dramatic situation where a woman has committed a murder. Treated by Griffith we would simply have the girl striking with a knife, then the corpse, then a close-up of her face registering horror, then a title explaining that she was horrified. Treated by the Germans we would have the corpse, then the same close-up of the girl, but in the centre of the frame would appear a tiny pin-point of light which would suddenly rush up and fill the screen, revealing itself as a dagger, in double exposure over the face. Chaplin, on the other hand, would show the murder by some little naturalistic detail, without showing the body at all, perhaps by the girl edging round it to get to the cupboard, or by her washing her hands. The Russians, however, would gain their effect by inter-cutting shots of the girl and the knife, the rhythm getting quicker and quicker, until finally on the click, clack of the face and the knife a shot of a piston working would be superimposed, thereby heightening the rhythm. In this way the Russians introduced what I can only call visual metaphor to the cinema. This shot of the piston is not merely a simile or comparison but is actually itself part of the scene it is in. As an actual example I can think of no better instance than in Pudovkin's film *"The Mother."* There we have a crowd of men advancing relentlessly over a bridge. At the end of the bridge soldiers are drawn up ready to receive them. At this point Pudovkin cuts to blocks of ice floating down the river and crashing against the piles of the bridge. It is true we had already been shown the ice in the rivers, but this shot gave us exactly the feeling of the band of men breaking against the line of soldiers. This is a true metaphor.

THE COMING OF SOUND

With the coming of sound it was necessary to explode two fallacies. The first was that the talking picture should be merely the photographing of a stage play, the second that one should go on making films just as in the silent days with a bit of sound patched on. The truth is that the picture and the sound must have a real relationship to each other. The best way I can think of illustrating this is that if we consider silent films like an ordinary musical composition, which has just the one strand, the talking film is like a ballet in which the two strands of music and dancing have to be carefully interwoven and neither is complete without the other. By cutting the picture in rhythm with the sound or on certain words in the dialogue we get a "kick."

Just as the Germans made the camera see through the eye of the actor, so with sound we can make the audience hear what the character is hearing. To take a well-known example in Hitchcock's early talkie *"Blackmail,"* a girl has murdered a man by stabbing him with a knife. (We don't seem to be able to get away from that knife). She goes down to lay the table for breakfast and a gossipy neighbour drops in. The neighbour, not knowing the situation of course, is full of talk about the murder, and as she continues her voice becomes a blur of sound to the girl, out of which at frequent intervals the one word "knife" stands out, until at last when the girl has to pick up the breadknife she cannot bring herself to touch it. Similarly, sound can give the thoughts of the actors. I do not mean by this the obvious stage practice used in *"Strange Interlude"* where the characters simply speak their thoughts outright. What I have in mind is much more on the lines (if you will forgive me for taking one of my own films again as an example)

(Continued at foot of page 4)

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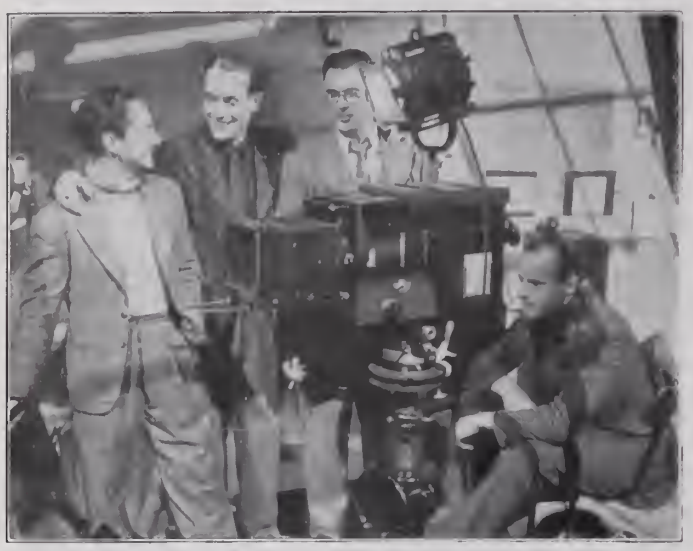
LIGHTING *By* BRYAN LANGLEY



Bryan Langley with his crew

THE location shots all taken, the time had come for us to start in the studio, so I went down to Walton-on-Thames to prepare for shooting. Just as I was about to light the first set, all the lamps flickered, after which came a black-out. If this was an A.R.P. test, then it was most inconveniently timed, I thought. Unfortunately it was not this at all—it was the Kingston Power Station catching fire! Next day we hired a Mole-Richardson generator, which, in addition to providing power for our studio lamps, also ran a cable to the office lamps. Now the office lamps were burning all the time, so that as we lit a lamp on the set all the office lamps faded out until the generator had speeded up to allow for the extra consumption. Throughout the day the office folk kept running in and telling me that the generator was not generating evenly and that they had seen the lights flicker. When I said I had seen nothing unusual, they walked away shaking their heads and looking most pessimistic. I believe that they were astonished, when the rushes were shown, not to see a continuous fading in and out during each take.

A STUDY OF DIRECTION

(*Continued from page 2*)

of a thing I did in *"Tell England."* A mother has just come home from seeing her boy off to the front at the railway station. We have not seen the railway station and she is engaged in the most commonplace of all activities—giving the grocer's order to the cook. A friend drops in and talks very gushingly: "It's always worse for those who have to say at home." As she goes on her voice mixes into the characteristic sounds of a railway station with the troop train pulling out—brass bands, bustle and noise, and goodbyes. Suddenly we come back to the friend's voice as she says "What do you say?" and at this the mother says: "I . . . I . . . I . . ." and then faints. In doing this faint I wanted to give an impression of what it is like to a person who is fainting. Though, mind you, I have never fainted myself, I believe it is something like an incessant ringing in the ears like a telephone bell. I started off with a low note in the double-bass, increasing in volume during the scene and dying away at the end. As the mother begins to fall I had one high pizzicato note on a violin, and simultaneously a major 7th in the highest octave of the piano, and lastly a single soft sustained note on the piccolo.

Just as we have use of metaphors with a picture so we have the use of sound metaphor. There is no reason, for instance, why in a quarrel with two men raising their voices in anger we should not cut in the sound of a machine gun or road drill. Indeed the use of sound can help us over many of our problems. To take one example, a film I made, *"Dance Little Lady"* taken from Compton MacKenzie's book *"Carnival."* In the book, after the girl meets her boy friend there is a very charmingly written series of love scenes in different parts of London. To get the same effect I decided not to show a series of small love scenes but to treat it in an essentially film way. The girl is a ballet dancer and the boy is at a performance of the ballet (actually Tschaikowsky's "Lac des Cygnes"). The music comes to a pause and with it we come for the first time to a close shot of the girl on the floor at the side of the stage. The music starts again with a long glissando on the harp and three chords for full orchestra. On the glissando the girl gets up. On the first chord she catches sight of the young man and we cut to a close up of him. On the second chord we cut back to her, and on the third we cut back to him gazing at her. After that we had very shortly their meeting outside the theatre. Then the girl goes home. She runs into her room anod throws up the window. As she does so we again hear the harp glissando and a mix then follows the 16 bars of music to which she had been dancing in the ballet. On the first beat of every fourth bar I cut to a different shot. First, Hampstead Heath—mostly sky—a small clump of trees and a kite streaming across the picture with the two lovers walking arm in arm. Secondly, a rather misty long-shot looking down on London. Thirdly, a churned-up wake of a river steamer, which panning up reveals on the fourth the two lovers seated in the stern of the steamer, with the four chimneys of Lots Road Power Station stark against the evening sky. The point of these shots was that they actually danced in time to the ballet music. I did convey, I hope, the effect of the lyrical love scenes in the book in a very small space.

Finally, I should like to pass on an anecdote told me by an esteemed friend of mine who said to me the other day, "What is the use of the Ten Commandments—they only tell you what not to do and put ideas into your head." Well if I have succeeded in putting a few ideas into your head I think that perhaps this has been worth while.

The generator filled me with the greatest admiration. It has a self-starter, generates 1,500 amps, and makes a noise like asthma!—"Wouf, wouf." It really is surprising, with all the facilities available today such as this generator, together with fast film, mobile cameras, mobile sound and *the vital necessity of making different films*, that some smart producer doesn't take himself off to some place of unique pictorial value and turn out a picture there—inside the Cheddar Gorge cave, some vast factory, or an historic castle. Such a film would be harder to make, would also take longer, but, after all, it would be cheaper; and if the pictorial results were similar to the stills the new magazine *Picture Post* gives us of men and women in their real surroundings, such a film should be as successful as *Picture Post* seems to be.

Walton is a delightful place to work at. In addition to the obvious attractions of a charming locale and an excellent restaurant run by the studio for the benefit of the camera boys and others, there is plenty of modern and up-to-date equipment in the two stages, one of which is small and antique and the other new and enormous. The new one has the overhead system of feed cables. The electrician upstairs can issue a new feed cable to any part of the studio in a very short space of time. He also has the feed cable switches up there. But it struck me as very odd that when I asked for, say, lamp No. 1, the gaffer, George Luker, might shout "Archie, number ten," meaning No. 10 feed cable. I am rather surprised that the feed cables aren't numbered alphabetically. Archie, the man upstairs, upon hearing his name shouted, puts down his Littlewoods and switches on feed cable No. 10 to which lamp No. 1 is connected. The sparks were always very careful to kill all the lamps locally because lamps 2, 3, 4, 5 and 6 may also be connected to feed cable No. 10, and one could easily be tripped up by this method. However, I had no bother. This method eleminates the possibility of spoiling a take by an enormous guillotine switch being broken with all the consequent noise and flashes. The overhead system is very pleasant to work with and very quick, but I should like to see the experiment tried of having the master switchboard on the ground to eliminate any possible time-lag due to shouting or cue lights.

The Walton sparks are very jolly lads. They have what is obviously a stock gag for visitors.

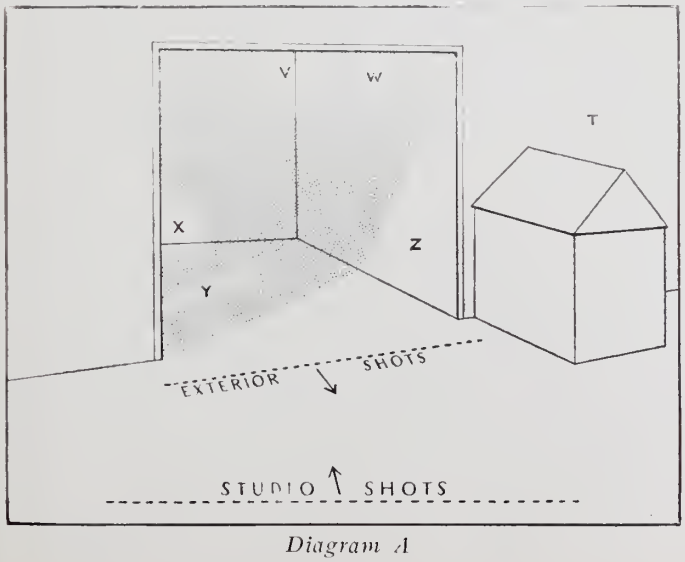


Diagram A

Any Spark: *"In which studio in England was a talking picture first made?"*

Me: *"I believe at Wembley—Deforest Fono Films."*

All Sparks: *"What will you bet?"*

Me (I smell a rat, they are so cocksure): *"I never bet on certainties"* (meaning that I was certain to lose).

Chorus: *"The first sound film was made here, in* 1904."

This studio has been going since 1894, and some of the boys have been there for 30 years! Everyone there is intensely proud of the record held by this studio—even the new boys of six yeass standing are proud of everything. In fact everyone in the film business *should* be proud of this record because it is a direct connection with the "Hepworth" days, when we led the world at picture making. It also shows that film producers can have the affections of their employees (founded on continuous work, decent wages and just conditions) and at the same time show a profit!

After the fire, THE OFFICIALS supplied the area with a limited amount of current taken, I imagine, from other power stations. Sometimes about 6.30 p.m., the peak consumption time, there was not enough power for both us and the housewives, so we had to stop work while the locals went home to eat big steaks cooked with our electricity.

In spite of this, and lots of other troubles such as fog, ice and cold, and sixty-two back projection set-ups—each to be very carefully considered in relationship to other shots taken on location, in the air, or by back projection, and an aeroplane which reflected everything in the studio—lamps, cameras and booms—in spite of all this, we were only three days over schedule.

Our leading lady, Miss Joan Marion, never grumbled or groused even when we ran aeroplanes over her or let wind machines off full blast in her face, or when she was cracked on the jaw half-a-dozen times by the villain. A real trouper. In addition she delighted me with a certain foolish little hat with a veil, which incited me to do such a close-up as never before! Then there was Barry K. Barnes. I am sure he will not easily forget the occasion when he was leaping in and out of an aeroplane cockpit with an enormous boil on his leg. I can't tell you here what his part is, but believe me, all is not as it looks on the surface. I should not be at all surprised if this is not his best picture to date.

In the studio was built an aeroplane hangar with a concrete run-in or forecourt. This was a big set filling the studio to allow for an aeroplane to be wheeled in and out of the hangar and to be manoeuvred on the forecourt. Most of the shots on this set connected direct with location work, making it essential that my light direction and contrast matched.

In *Diagram A* I have shown the layout of the hangar, the drawing office and the forecourt, also of the lighting effects. We shot outwards from the dotted line on location and inwards from the dotted lne in the studio. The sun direction was on my right on location and on my left in the studio. Whilst on location we never showed the inside of the hangar.

My problem was this, that while it was simple enough to match the sun direction and contrast on the concrete forecourt, I had to convey by lighting that inside the hangar was quite dark and under a roof. *Diagram A* is

a sketch of the set. *Diagram B* the the lighting plan. Inside the hangar the brickwork was painted a very dark grey to absorb any leak light from the forecourt lighting. I could have left the interior walls flat and therefore un-

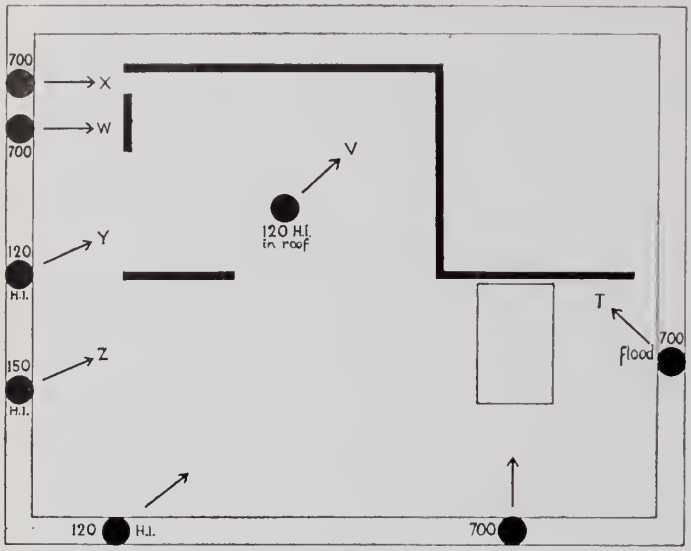


Diagram B

interesting as in real life, but instead I imagined a glass roof and so splashed the walls with sunlight patches, always keeping to the motif of the sun from the left. On the exterior part of this set I covered the front of the hangar and the majority of the forecourt with a 150 amp H.I. arc. I also had a 120 amp H.I. arc for the immediate foreground. The downstage end of the drawing office was covered with a 700 mm. silked facet mirror arc, and where in *Diagram A* it says "Hangar" I played a 700 from the right. This lamp was on the right so as to give relief to the corrugated iron of the hangar. On the left it would have flattened out the corrugations. As the location stuff was of a low contrast, owing to being shot in December, I had four banks hung vertically below the gantry between the 150 H.I. and the 120 H.I. so as to give a general flood of light all over the set. A little soft back light for roundness and a little soft light from the front and I was all ready to go.

In the majority of shots on this set the aeroplane was being wheeled about; several parts of the 'plane were of burnished metal and curved, so it acted as a convex mirror and reflected everything. Putty was no good because it showed over such a large area, so we used Bluebell—put on just before each take, to take off that intense reflecting power.

To round off the picture, we made 62 back projection shots in two days, the second of which lasted until 3 a.m. the following morning. The projector has a 159 amp H.I. arm with a Maltese Cross movement, the screen is ground glass and the interlocking system by Selsen. The camera is an early model Debrie, mounted on a U-piece for tilting. At the base of the U-piece is a quadrant for levelling—we used this to roll the camera when taking aerial back projection shots, it gave that floating movement which is so essential and realistic.

I must pay tribute to director David Macdonald and editor David Lean, who gave me every possible assistance in regard to time and the choice of angle. Also to my assistants, Erwin Hillier and Bunny Francke, for their splendid co-operation and help.

A.C.T. AND FARADAY HOUSE

Below are letters exchanged recently between A.C.T. and Faraday House, the electrical training institute, on the question of recruitment to the Film Industry.

From A.C.T.

Dear Sirs,

We have been led to believe that there is an arrangement between yourself and one or more film production companies whereby certain juniors are supplied to those companies.

If this is a fact, we should like to joint out that at the present time 80 per cent of British studio workers are unemployed, including competent technicians in all grades of the Sound Department.

We trust therefore, that you will bear these facts in mind and restrict, at least for the time being, the ingress of further employees into an industry in which so many competent technicians are at present unable to obtain employment.

Yours faithfully,

THE ASSOCIATION OF CINE-TECHNICIANS
GEORGE H. ELVIN,
General Secretary.

Reply from Faraday House

Dear Sir,

We acknowledge your letter and note your remarks. I would add for your information that we have for a long time discouraged men from joining film studios, and the studios themselves have refused. I think without exception, those few applications which for some special reason have been sent, in spite of all the advice we have given to the contrary.

There are a few men who are so blinded by the glamour of the films that they would leave us and make their own arrangements if we refused to act for them. I think, however, as I said, that even those have not succeeded in getting into the industry in recent years.

We are in affiliation with some two hundred firms in all branches of electrical engineering, and one of them is a studio. The inclusion of a firm's name on our list, however, does not mean that it will accept men we send, but only that it will consider applications in the light of circumstances which are at present adverse.

Yours faithfully,

L. VAN VESTRAUT,
Registrar.

I VISIT A BELGIAN CINEMA

THIS is a brief account of a visit to a cinema in a Belgian coastal town. The prices of seats were as follows:—parquets 4 frs., fauteuils 5 frs., reservées 6 frs., and balcons 6 frs. "Parquets" being the equivalent of the "sixpennies" (at 140 frs. to the £1), "Fauteuils" pit stalls, "Reservées" being the best seats downstairs, six rows slightly raised on a dais at the back of the house as there was no rake whatsoever. "Balcons," which incidentally were approached by an ordinary staircase along one side of the hall, formed a very small circle consisting of another half-a-dozen rows or so. Total capacity 275-300 seats.

There were only two doors into the auditorium, practically side by side, which probably explained the no-smoking rule. Ices were on sale but there was no chocolate girl. There were two performances a day, a matinee at 2.30 p.m. and an evening show at 8.30 p.m. The running time overall was three hours and was made up by a long French Gaumont newsreel of a vintage issue, (for instance the Pope was shown being crowned several weeks after the event), and the other items were similarly behind the times. Next was a trailer followed by a British film "Sunset in Vienna" with French and Flemish overprinted sub-titles. The French were definitely more explanatory than the Flemish, but at best served only as a commentary on the events taking place and did not attempt to give anything approaching a word for word translation of the dialogue. The picture main titles, excepting the actual technical credits, were replaced entirely by a single black and white title of a crude kind announcing the French title of the production. Following an interval of about 10 minutes the first feature was shown. This was a French film featuring the comedian Fernandel, who bears a striking facial resemblance to Formby. The technical credits of this film included a laboratory credit, and was illustrated adequately by Flemish sub-titles.

The whole show, which was garnished neither before nor during the interval by music, non-sync or otherwise, was characterised by speed variations even on dialogue and the prints were considerably the worse for wear.

To sum up, one might add that the audience preferred broad humour, not necessarily "blue" but rather of the slapstick variety, and if a conclusion has to be drawn, let us say that the foreign editorial departments might be a little more lavish with their overprinted titles as the audience became definitely restive when long conversations were nonchalently explained away by irregular and brief sub-titles.

T. S. LYNDON-HAYNES

FIFTH

A.C.T. BALL & CABARET

ASTORIA DANCE SALOON

CHARING CROSS ROAD, W.C.2

THURSDAY, MAY 18th, 1939

8 p.m.——2 a.m.

Cabaret will include Miss

GRACIE FIELDS

(By kind permission of 20th Century Fox Productions)

JOE LOSS AND HIS BAND

EVENING DRESS OPTIONAL LICENSED TILL 2.0 a.m.

SINGLE TICKETS 5/-

From A.C.T. Studio, Laboratory and Newsreel Representatives, or Association of Cine-Technicians, 145, Wardour Street, London, W.1

FILM CENSORSHIP IN AMERICA

In our last two issues we have discussed film censorship in Great Britain. The following statement by the American Civil Liberties Union (reprinted from the "Metropolitan Motion Picture Bulletin of New York") will give readers an indication of the position in the United States.

MOTION picture censorship exists by law today in seven states. In many cities the police also act as censors a few requiring submission of films to a special police agency.

In all the states the laws are almost identical and the methods of administration vary only slightly. In each there is a Board of Censors of two, three or more political appointees who examine and accept or reject, in part or in full, every motion picture offered for exhibition in those states. The criteria for decisions are standards of which the New York law is typical:

> "*Section* 1082 *Licences.* The director of the division or, when authorized by the regents, the officers of a local office or bureau shall cause to be promptly examined every motion picture film submitted to them as herein required, and unless such film or a part thereof is obscene, indecent, immoral, inhuman, sacriligious, or is of such a character that its exhibition would tend to corrupt morals or incite to crime, shall issue a license therefore. If such director or, when so authorized, such officer shall not license any film submitted, he shall furnish to the applicant therefore a written report of the reasons for his refusal and a description of each rejected part of a film not rejected in toto."
> (*Education Law, Article* 43).

While actual censorship exists in only seven states, it directly affects the whole country. Several of the states with censorship are financially very important to the motion picture industry; the rejection of a film in them would be so disastrous to the producers that they base all their pictures on the requirements of the censors in the larger states.

The producers, afraid of sustaining heavy losses through rejections or deletions, have set up their own unofficial censorship organisation, Motion Picture Producers-Distributors of America, commonly known as the Will Hays office. All Hollywood films are filtered through two censorship agencies: their own, which exercises previous restraint and automatically bars certain themes, treatments and points of view; and the seven states', before which every picture comes for review.

These who advocate censorship do so on the assumption that no responsible person would encourage immorality or vice. They stress the importance of protecting youth from unduly suggestive representations of sex and crime and of discouraging vicious, loose or immoral behaviour. They consider their function as part of the educational system.

Actually, examination of the result of their work reveals that it is far from accomplishing these aims. The censors do not, and under the law probably cannot, advance positive proposals for the general improvement of films. They can merely exert a negative force in deleting words and scenes they do not approve of. The result has been, not the elimination of suggestive sexual episodes or of lurid exhibitions of vice and crime; examples of both may be found in almost any double feature bill; but merely an intensified slyness of the producers in presentation. Educationally the censors can claim only a negative and incomplete effect.

In addition to sex and crime, the law prohibits sacriligious content. Deletions on this score, according to the report of the New York Board of Censors, are the fewest, amounting in the year 1936–37 to 33 deletions out of a total of 1,291. However, church and religious groups have a strong influence on the censors and indirectly on motion picture content.

A number of important rejections affect political films, usually produced independently or abroad. Not only have liberal, labour and radical themes been censored, but even news films thought to be "offensive to a friendly nation." Technically the censors have no legal justification for judging films on a political basis. In no state does the law mention politics or political themes or give the censors power to discriminate between political camps. Yet all the censors assume this under the vague language of the law. It is in these cases of political content that censorship has raised the sharpest issues.

* * *

Freedom of the Press and the Challenge of the Official Secrets Acts (National Council for Civil Liberties, 3d.)

This pamphlet is a report of the speeches made at a recent Conference convened by the National Union of Journalists and the National Council for Civil Liberties. The contributors include Major G. Lloyd George, M.P., Compton Mackenzie, A. P. Herbert, M.P., and several Trade Union officials. Freedom of the Press is closely allied to screen censorship (as is pointed out in G. H. Elvin's contribution to the discussion) and this admirable pamphlet should be read by all interested in the safeguarding of hard-earned British liberties.

CORRESPONDENCE

The other day, on my way to the House of Commons, I walked through Leicester Square and paused for a moment to examine the insignificant statue of Shakespeare which is our country's chief tribute in stone, in London, to the memory of one of the greatest minds of all time. I reflected how gloriously the work of his genius had uplifted the spirit of mankind wherever his works have reached. Shakespeare is more than a noble part of our national heritage. He is an influence in leavening mankind.

I am very glad to see, therefore, that the scheme to establish a National Theatre in Shakespeare's name in London begins to meet with success. A National Theatre will be a real expression of the pride we feel in the greatest genius in our literature.

Of course, the National Theatre will not only do Shakespeare plays. Plays whether from ancient or more modern times will find their place there too.

All my life I have lived among the workers and I know the East End of London as well as I know myself. I know how much real cultural appreciation there is among the people I live among and represent in Parliament. I can bear witness to the fact that the people generally do want a National Theatre. They hunger for the best that the drama can give.

Yours etc.,
THOMAS GROVES,
M.P. Stratford Division

HOLIDAYS WITH PAY

THE FAMILY HOLIDAY
REQUIRES MORE THAN A WEEK'S WAGES

Thousands and thousands of Trade Union members have benefited from the welcome extension of the Holidays with Pay movement. Thousands more will benefit this year.

Many Union members receiving Holiday Pay will no doubt wish to take their families away with them for a week by the sea or in the country. To know that the whole family is enjoying a healthful holiday will in itself be a source of happiness and peace of mind. To have a family holiday—and indeed to have any holiday that is to be of maximum benefit—Union members will do wisely if they resolve to supplement their Holiday Pay by personal savings.

Preparation for this year's holiday should be going on now, and the most convenient way of putting by a bit of money for it week by week is to join a NATIONAL SAVINGS HOLIDAY CLUB. Clubs of this kind have already been established in a large number of places of employment throughout the country, providing employees with a secure means of saving personally for holiday purposes.

TRADE UNION OFFICIALS in a number of important industries are giving valuable support to this scheme which can obviously be of great service to Trade Union members.

The National Savings Committee offers every assistance in the organisation of Holiday Savings Clubs, including the provision of a speaker to address prospective members and an explanatory circular letter for distribution. Membership cards, literature, etc., are supplied free.

Enquiries should be addressed to the
NATIONAL SAVINGS COMMITTEE
(REF. R 21 C), LONDON, S.W.1.

Modern Cinematograph Studio Lighting Equipment

SEVERAL interesting types of projector and other lighting apparatus for film studios are included in the new range of G.E.C. photographic equipment. Among these is an interesting 2 kw. studio effect illuminator.

This unit is designed for general set illumination. It can be focussed at a distance of 10ft. from a small spot 18ins. in diameter to one of 8ft. in diameter, with single hard shadows for effect purposes. The optical arrangement includes a 10ins. prismatic plate spotting lens of special formation, mounted in a spun copper ring; the risers of the prisms are blackened to prevent spill light. The lamp carriage on which is mounted a patent Bi-post lampholder and spheroidal backing mirror, can be focussed by a single, collapsible handle at the rear. It is designed to accommodate either a 1 kw. or 2 kw. flat grid filament Bi-post studio projector lamp.

Two types of spheriodal mirrors are available for use with this unit—one being of optically ground heavy gauge glass with exceptionally heavy silvering, and the other ground copper heavy gauge, Rhodium plated. The mirror is mounted on a pre-focussing base, so that when it is supplied no further adjustment is required.

Mechanically, the unit is built upon two aluminium castings and is hinged about the horizontal axis of the lens. When opened, it gives complete access to the interior, thus facilitating the cleaning of the mirror or replacement of the lamp. The lens is located by two slots in the lower section of the unit. It is held rigid when the unit is closed, but can be instantly removed when it is open.

A double pole mica mounted switch is built into the rear, and connection is made by a two-pin pistol grip holder fitted with a side earthing strap. Thus, the unit may be connected to a three-wire system, and the entire unit can be earthed. A countersunk ring is fitted in the front for hoisting purposes, and the complete housing is mounted on a single tubular fixed steel cradle, clamped by a large handwheel at one side. The weight of the unit, complete with lamp, is only 40 lb.

2 k.w. studio effect illuminator

Studio reflector to house 2 k.w. lamp

Another item of equipment for the film studio is an overhead reflector unit. This is constructed of sheet aluminium, strengthened with metal sections, and is designed to accommodate twelve 1,000 watt lamps, having an average life of 1,000 hours. The lampholders are set at an angle, so that the lamps are vertical when the reflector is tilted at an angle of 30 degrees. There are separate double-row fuses which serve as isolating links, when desired, for each of the three rows of lamps.

There is also a studio projector, incorporating a 12ins. square prismatic plate lens which is housed in a solidly constructed body built up of aluminium castings. Special care has been taken by the designers to ensure that it will withstand hard usage.

This unit is designed to incorporate a 2 kw. filament lamp, backed by a spheroidal mirror mounted in cast aluminium rings. Special focussing screws are provided to ensure accurate alignment, and the whole mounting is easily detached by a single wing-headed bolt in the base.

The mirror is so mounted that it may be removed for cleaning or lamp changing and replaced without disturbing the focussing. The top of the projector is fitted with a special countersunk ring for hoisting a spot rails or other elevated positions.

Two types of cradle are available. One is a single tubular fixed cradle, of light design, for use either on a stand or an offset spigot; the alternative is a patent adjustable offsetting cradle of double tubular construction with a single handwheel clamping device, ensuring easy and complete control.

This projector is designed for widespread flooding of high even intensity; it produces a spread of 12ft. in diameter at a distance of only 10ft. It can be mounted on a light collapsible tripod with a single tube extension elevated by a self-sustaining winch, or on a fixed tubular tripod. Both stands are mounted on rubber-tyred castors.

Portable units fill a number of requirements. It is characteristic of the latest models that they are light in weight, yet exceedingly robust. Among units of this type is a 500 watt table reflector constructed of aluminium and strengthened by a double reflector let into the side. The internal surface is suitably diffused to avoid harsh and uncomfortable glare to sitters, while the outer surface is highly polished.

The reflector is mounted on a small stand and is tilted by means of a knuckle joint and wing nut. It is provided with 12ft. of tough rubber sheathed twin flexible and a 5 amp. bakelite plug.

Another valuable item of studio lighting equipment is a 1,500 watt three-light portable reflector. This has a steel collapsible tripod with three 10ins. diffusing reflectors each suitable for a 500 watt tungsten lamp. Each reflector is adjustable and can be fixed by means of movable clamps. The unit is easily dismantled for fitting into a portable case.

Two broadside reflectors have been designed for general floodlighting. One accommodates a 1,000 or 1,500 watt tungsten filament lamp and the other can be equipped with two lamps of similar voltage. The reflector unit in each case is of polished aluminium and is fitted with a double telescopic stand on a heavy base mounted on tyred castors. The reflector is tilted by means of a locking quadrant. A double-pole 20 amp. ironclad switch is fitted at the rear and a detachable diffusing glass screen is supplied. The reflector can be removed from the stand and mounted on the base for foot lighting.

A highly efficient medium for studio lighting is provided by a reflector designed to accommodate one 400 watt Osira mercury vapour lamp and two 300 watt tungsten lamps. The intensity of light given for a current consumption of 1,000 watts is equivalent to that derived from tungsten lamps of 1,800 wattage. But an even greater advantage is that the quality of light afforded by this mixture abolishes the need for colour filters when panchromatic films or plates are used. These filters, essential when the light is derived solely from tungsten filament lamps, double or quadruple either the exposure time or the illumination required.

Two-light studio broadside for use with two 1,000 or two 1,500 k.w. lamps

G.E.C. Photographic Equipment

When photographed under lighting provided by this unit, colours are reproduced in the same relative brightness as seen in actual daylight. The actinic efficiency of a mixture of mercury vapour and tungsten lighting, as opposed to a purely tungsten system, is increased for photographic purposes from two and a half to five times. The light is diffused by means of a flashed opal glass screen.

The lamp mounting frame in this unit is held rigid inside the aluminium housing which has a 30 degree angle of tilt. The heavily plated stand, which can be extended to a height of 8 ft., has a three-way cast base with rubber tyred castors.

A unit of special appeal to amateur, as well as professional, photographers is a light table model reflector designed for a 275 watt photo flood lamp.

Osram lamps, specially designed for photographic purposes, have been instrumental in solving many difficulties in the studio, just as "Sashalite" bulbs have simplified the flashlight process. The latest apparatus developed for use with either tungsten or mercury vapour lamps, or a mixture of both, represents another great advance in photographic technique.

Standard equipment now covers an extraordinarily wide field in the world of photography. The experience gained in the course of its development has facilitated special applications to solve all kinds of individual problems.

SURVEY OF FILM PRODUCTION STATISTICS

Preliminary Results of the Import Duties Act Inquiry

Reprinted from THE BOARD OF TRADE JOURNAL

FOR the purposes of this Inquiry, the trade was regarded as comprising the following four classes of firms:—

(*a*) producing firms that owned studios;
(*b*) producing firms that hired studio space and, in many cases, equipment and services;
(*c*) owners of studios that produced no pictures but let out studio space and services to producing firms;
(*d*) firms carrying out other services on behalf of producing firms.

The printing of cinematograph films was regarded as forming a distinct trade and no particulars are included in these tables relating to firms whose business consisted wholly or mainly in that branch of the industry.

The number of returns received was 134, and the results are believed to be fully comprehensive of the industry in the United Kingdom. Under the Import Duties Act, particulars relating to the lease and hire of studio space and equipment could not be obtained compulsorily and were accordingly asked for as voluntary data. The Board of Trade were assisted in the Inquiry by the co-operation of all firms in the industry, and all the details required, whether compulsory or voluntary, were furnished with reasonable accuracy and promptitude.

Period Covered.—The period covered by the Inquiry was the calendar year 1937, but firms whose year of account was not the calendar year were given the option of making returns for a business year ending not later than 8th April, 1938.

Output.—Firms that produced cinemtograph pictures were required to value their output on the basis of the *total cost of production,* which was defined as covering all payments for materials and fuel purchased and used, salaries, wages and other overhead charges properly attributable to the work carried out, including payments for copyrights, hire of studios, etc. Owners of studios letting out space, equipment, etc., to producing firms returned as the value of their output the total amounts received by them in the year for these services.

The production of cinematograph films is not necessarily completed within the limits of the producer's business year, and in order to obtain an accurate measurement of the value of the output in the twelve months, the details of pictures produced are divided into three sections, viz.:—

Table II A.—Films produced wholly within the year of return; for these films the number, total length and cost of production are given.

Table II B.—Films completed in the year of return but not wholly produced in that year; the number, total length and cost of production of such films are shown, together with the cost of the "Work in progress at the beginning of the year," this last item being shown as a deduction from the total cost in order to arrive at the correct valuation of work actually carried out in the year.

Table II C.—Films begun during or before the year of return and not completed at the end of the year; for these films, only the cost of the work done in the year can be shown.

Materials and Fuel.—Firms were instructed to return only the cost of materials and fuel which they themselves purchased and used in connection with their output in the year. Materials, etc., purchased by the studio owners and let out on hire to producing firms were included in the returns of the former but not of the latter firms.

Persons Employed.—The numbers shown relate only to persons employed in the specified weeks. These weeks may not, however, coincide with the periods in which production of cinematograph films took place, and in view of the irregularity of employment the "average" numbers shown in the tables may not be strictly representative.

Net Output.—This figure, shown in Table I, represents the value of the gross output *less* the cost of materials,, fuel and electricity purchased and the amounts paid for work given out and for the hire of studios, equipment and services. It forms the fund out of which wages and salaries and other overhead charges have to be provided.

Owing to the necessity of avoiding disclosure of particulars relating to the business of individual firms, certain items of information are shown under more general headings than those under which they were originally furnished.

Table I.—General Summary

	Unit	1937
Value of gross output	£'000	7,163
Cost of materials, fuel and electricity used	,,	899
Amount paid for work given out	,,	323
Amount paid for hire of studios, equipment and services	,,	1,064
Net output	,,	4,877
Average number of persons employed ...	No.	7,785
Net output per person employed	£	626
Number of returns	No.	134

Table II.—Output

Detailed particulars in the form in which returns were furnished as shown in Tables II A—D. The results are summarised below.

	Gross output £'000
Work done in the year of return:—	
On films produced wholly within the year	3,652
On films completed in the year of return but not wholly produced in that year	790
On films begun during or before the year of return but not completed by the end of that year ...	1,267
Total—Work done on films in the year	5,709
Receipts for hire of studios, equipment and services	1,337*
Receipts for other work	117
Total	7,163

* Amount received.

Table II A.—Films Produced Wholly Within the Year of Return

Kind of film	Number	Total length	Cost
		Th. lin. ft.	£'000
Entertainment films, other than cartoons:—			
Exceeding 3,000 feet	143	905·4	3,118
Not exceeding 3,000 feet ...	150	160·4	38
Cartoons	4	3·3	5
News reels	577	606·5	296
Other current events	132	59·5	4
Educational	85	81·8	36
Advertising	14,626	597·8	99
Other kinds, including sound track recorded separately	420	632·6	55
Sub-standard films	28	11·1	1
TOTAL	...	...	3,652

Table II B.—Films Completed in the Year of Return but Not Wholly Produced in that Year.

Kind of film	Number	Total length	Cost
		Th. lin. feet	£'000
Entertainment films, other than cartoons:—			
Exceeding 3,000 feet	31	243·2	1,992
Not exceeding 3,00 feet ...	16	20·2	21
Cartoons	6	4·8	6
Educational	37	26·2	11
Advertising	22	25·1	28
Other kinds	21	39·2	23
Total			2,081
Less work in progress at the beginning of the year			1,291
Total.—Cost of work done in the year on films completed but not wholly produced in the year			790

Table II C.—Films Begun During or Before the Year of Return but Not Completed by the End of that Year

	Cost
	£'000
Entertainment films, other than cartoons:—	
Exceeding 3,000 feet	1,220
Not exceeding 3,000 feet	12
Educational	24
Advertising	3
Other kinds	8
Total	1,267

Note.—Of the total cost of work on cinematograph films in the year of return (£5,709,000), the amount recorded in respect of colour films of all kinds was £526,000.

Table II D.—Receipts for Hire of Studios, Equipment and Services and Other Work Done in the Year

Particulars	£'000
Receipts for hire of studios, equipment and services:	1,100
As studio owners	
As tenants of studio owners	68
Receipts for hire of equipment and services not included above	159
Receipts for developing and printing	6
Receipts for other work	111
Total	1,454

Note.—The total recorded in Table II D (£1,454,000) involves some duplication with the cost figures shown in Tables II A—C. The extent of this duplication cannot be stated precisely, but consists of the amount of £1,064,000 paid by producers for hire of studios, etc. (see Table IV), together with some part of the sum of £323,000 paid for "Work given out to other firms" (see Table I).

Table III.—Materials, Fuel and Electricity Purchased and Used

Kind of materials, etc.	Quantity	Cost
	Th. lin. ft.	£'000
Materials used:—		
Blank film	57,749·3	323
Purchased negatives	203·0	33
	...	21
Films made abroad by the firm	...	74
All other purchased materials	...	379
Fuel and electricity used:—	Th. tons	
Coal	4·3	6
	Th. B.T.U. (Kw.-hrs.)	
Purchased electricity	5,493	31
All other purchased fuel	...	32
Total	...	899

Table IV.—Hire of Studios, Equipment and Services

Particulars	Amount paid
	£'000
Hire of studios, equipment and services:—	
As principal tenant	750
As sub-tenant	132
Hire of equipment and services not included above	182
Total	1,064

(*Continued at foot of next page*)

CLOSE-UPS

No. 1—BERT CRAIK

Bert Craik, Chairman of the A.C.T. Laboratory Section, works as Optical Printer at A.B.C. Labs, Elstree, where he's been for the last 8 years. He came there from the old Williamson's Film Printing Co., at Barnet, where he was working as an "Improver" at 35/- a week, just neatly anticipating its crash. As a matter of fact, he'd been on the edge of the lab. business years before: his first job on leaving school at the age of 14 was at the local photographer's shop in his home town, Carlisle. Here he mixed the chemicals, did developing and printing, and on a bike travelled the countryside—often 50 miles a day—covering weddings, bazaars and other highlights of local life.

He reckons he's risen as far as he can in the lab. world. The next step, manager or under-manager, is closed to him while the country is run by people who don't want trade-unionists and socialists in executive position. Such positions, he thinks, are normally filled by those who have been well educated, are conservatively minded and have influence. One of the greatest scandals of this country is that the best education goes only to those who can pay for it. So the best jobs, which go to the people of education, are virtually bought, and the ordinary child with an elementary school education doesn't stand a chance unless he's brilliant and lucky.

No one has a better right than Bert Craik to take this view. As a schoolboy he passed all the exams for higher education, but his parents couldn't afford to send him. His father, a Carlisle brassmoulder, had served his full seven years' apprenticeship, yet even in the war years his wages never rose above 30/- for a week of 76 hours. So Bert had to leave school at 14 and go into the photographer's, where it is interesting to note he started at a wage of 35/-, more than his father had ever earned.

He found the same class distinction later on when he was serving in Egypt in the R.A.F. With several other fellows he had been promoted Corporal, but on the arrival from England of some callow public-school youngsters already with that rank, he and the others had their stripes taken away again.

So Bert, though probably he has come as far economically as is possible, is by no means satisfied. He would like to see; first, the best possible education made available to every child, however poor he may be, for a nation is only as great as the knowledge of its people; second, friendship between all the nations of the world brought about by educating their children together. Third, which he thinks will indirectly follow from the

SURVEY OF FILM PRODUCTION STATISTICS

(Continued from previous page)

Table V A.—Numbers Employed in the Week ended 16 October, 1937

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
Operatives	46	2,649	2	80	48	2,729
Artists	2	3,704	4	421	6	4,125
Administrative, technical and clerical staff ...	115	2,105	21	570	136	2,675
Total	163	8,458	27	1,071	190	9,529

Table V B.—Operatives and Artists Employed in one Week in Each Month of 1937

Week ended	Males and females	
	Operatives	Artists
January 16	2,972	1,886
February 13	2,237	2,202
March 13	2,254	2,357
April 17	2,222	1,962
May 15	2,248	2,569
June 12	2,772	1,612
July 17	3,060	2,232
August 14	2,529	2,416
September 18	2,822	4,172
October 16	2,729	4,125
November 13	2,832	2,627
December 18	2,608	1,874
Average for the twelve months	2,607	2,503

other two, a general improvement in the wages and labour conditions of the working class.

Behind these ideas of his lies a life of varied experience. When he was 17 both his mother and father died in the Spanish 'flu' epidemic and he had to give up his job in the photographer's and go with his brothers and sisters to live with an aunt at Newcastle. Here he joined a tramp steamer in the position of what was euphemistically referred to as "2nd Cook"—that meant peeling potatoes and doing other kitchen chores for 16 hours a day, seven days a week. That is when they were at sea, which was most of the time, but in port it wasn't so bad. They generally had a cargo of coal and when they reached Gibraltar, say, it all had to be unloaded by dockers in baskets. This took several days and meanwhile the lads were on shore, enjoying themselves in any way they thought fit. Bert claims that what he remembers about those shore trips at Gibraltar is the smell of the orange groves and the way the houses were built in tiers up the cliff side—well, maybe!

After six months of this life he joined the R.A.F., which had just developed out of the old R.F.C., and served in it for eight years as radio telegraphist. Three and a half years of this he spent in Egypt, Palestine, Iraq, at a time when 'plane crashes were even more common than they are to-day. Towards the end of his service, on the train down to Norfolk, he met a girl, who later on used to slip out from home on the pretext of going for fish and chips, and go to dances with him. She is now his wife, and they have two fine kiddies. They got married six months before the end of his R.A.F. service, so he did not re-engage. Otherwise he thinks R.A.F. life fine for a single man—his main criticism being that the commissioned ranks are the monopoly of the public-school class.

With his service rank of corporal telegraphist, he was told he could easily get a job with the Post Office, and, in fact, he passed all the P.O. exams. within a month of leaving the R.A.F. After waiting for six months without work to hear from the Post Office, he was finally offered the Williamson's job through Middlesbrough Labour Exchange and was naturally ready to take it. After a year's work in the film business he was notified by the G.P.O. to proceed to some small Post Office in the Midlands and take over his first job, at a salary of £2 10s. a week, rising during a period of ten years' service to a maximum of £4! Somehow he didn't feel like taking it up.

So that's how Bert Craik finds himself where he is to-day. He wasn't always a Labour man—in fact he used to be a Conservative. But with his childhood, as the oldest of six brothers and sisters, in the warm and easy intimacy of life in a Carlisle working-class street, he has always kept his sense of working-class loyalty and comradeship. And on this subject he holds pretty strong views about present-day workers and trade unionists as he has met them. Forgetting that the first principle of trade unionism is that the better-paid workers combine with the worse paid to raise and protect the standard of the worse paid, as well as to safeguard their own, workers to-day seem to care nothing for their fellows and consider that unless their own wage personally is raised the Union is no good to them. In other words, out of jealousy and selfishness, they have adopted the well-known motto: "——— you, chum; I'm all right." Well, this is no motto for trade unionists. Unless the working man has enough decency and loyalty to stand by his mates the employers can easily set one against another and do exactly as they please. Every worker cannot expect to have a wage rise when an agreement is signed; the main thing is that by others getting rises his own position is strengthened, not only in his present firm, but in any firm he may later work for. So Bert Craik's final word is: "Forget your jealousy and selfishness and stick together."

F.S.

* * *

ANNUAL REPORT OF THE MANOR HOUSE HOSPITAL

The Manor House Hospital renders a great service to the Labour and Trade Union movements. For a penny a week, members of affiliated Trade Unions (and A.C.T. is one) can obtain the finest medical treatment in the country. Several of our members have nothing but praise for the efficiency of the hospital at Golders Green and the associated dental and optical departments. During 1938 the Hospital had a record year; two new Operating Theatres, three Wards with 21 beds each, a new Boiler House and Incinerator and new Mess Rooms were added at a cost of £60,000.

The total income for the year was £51,746 of which £43,000 was contributed by the 1d. per week members—a truly remarkable achievement. A.C.T.'s contribution to this total was £13 12s. 6d.—not a very large sum but an indication that many of our members recognise the value of the scheme. As one who has had personal experience of the facilities afforded, I heartily recommend every member to join. The cost in infinitismal, and can be paid with your A.C.T. subscription every week.

The Manor House Hospital is an example of the creative initiative of the Trade Union Movement and it behoves all trade unionists to support it.

R.B.

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145 WARDOUR STREET, LONDON, W.C.1. GERRARD 2366

Television Outside Broadcasts

By

P. H. DORTÉ

A report of a lecture given by Mr. Dorté (of the B.B.C. Television) to members of The Association of Cine-Technicians

SIX months ago, when I was asked to talk here, I was rather diffident about it because I was not at all sure that film technicians were interested in television, or if so, to what extent, but since then a lot of things have happened and if I say that television and the film business are "engaged"—the usual preliminary to marriage—I do not think I shall be very far out, because television is getting rapidly interwoven with the cinema business due to Big Screen Television.

I read in the papers the other day that Mr. Isidore Ostrer was reported as saying that in his opinion the second feature film will disappear and a television hour will take its place. This is looking very far ahead, but undoubtedly the situation does exist that the cinema wants our television outside broadcasts and by the same token television does want films. I think I am also justified in saying that the B.B.C. is making a gesture towards the film business by permitting in certain cases re-diffusion of outside broadcasts in cinemas. But I am sorry to say that at the moment I am not aware of the film business letting us have many films!

P. H. Dorté

BIG SCREEN TELEVISION

There has been a great deal of publicity in the papers about Big Screen Television and considerable confusion arises I think in the minds of the public, the film business itself, and the wireless dealer. On the morning of the Gains–Harvey fight my telephone rang incessantly with dealers asking if we were going to prosecute them if they showed the fight in public in their demonstration rooms. The B.B.C. attitude to Big Screen can be summed up like this:

> "While it regards large scale screen projections as still experimental, it does not oppose large screen rediffusion of its programmes before paying audiences in cinemas, when the programmes concerned are either events of national importance and interest, or of independent commercial promotion, such as sports events, the rights in which are held by a promoter.
>
> The B.B.C. insists, however, that no exclusive rediffusional rights are given to any one group of cinemas, or one particular large screen system, and all applicants for rediffusion must be granted rights on equal terms balanced approximately on the relative seating capacity of the theatres concerned."

But actually I am here to talk about outside broadcasts.

ACTUALITIES

We divide outside broadcasts into two types. Actualities and Features. Actualities are essentially programmes which cannot be altered to suit the requirements of television, sporting events, football matches, Armistice Day, Trooping the Colour, arrival or departure of celebrities at stations and airports—all occasions which are covered by the newsreels. On the surface the handling of this type of programme would be, I suppose, the same as making a newsreel of it, except that the commentary is made whilst the event is taking place rather than afterwards. But actually it is quite a different story, because, for example, a football match when televised runs for an hour and a half—on a newsreel only the best material is used—television has got to take in the whole thing and even the dull bits, and whilst this may not seem to you to be very difficult, it is. We have to sustain interest for an hour and a half, and we are still learning how to do it. Every time we put on a television show we learn something different. For instance I have never yet seen a football match on the newsreel and understood its geography; it is probably covered by several cameras from several different angles, and on the screen all you see are the goals being shot. You don't have to bother about the geography of the game. But on television it is different; from a point of interest we do change angles sometimes but we do not whisk you from one stand to another because of its tendency to confusion.

It may interest you to know that the technique we are following now so far as football is concerned is to place three cameras at one central spot and by having different lenses in these cameras to merely give you different sized shots from the same position—which is more restful and enables you to follow the game without any sense of jarring. Now for the question of commentaries; reverting to the football match again, in a newsreel you see probably see two minutes of the game, so your commentator has only two minutes to be either amusing or dramatic. The task of a commentator on television is obviously more difficult because the transmission lasts for a much longer period. There must be long periods when practically nothing of interest is happening and somehow these periods have to be pepped up so that the whole is kept interesting—and that, of course, is the job of the commentator. We still have not decided whether the television commentator should be a man who knows his subject backwards or is just a really good commentator.

FEATURES

Now regarding Features—in broadcasting or television as opposed to the film sense. These are actualities which can be adapted and staged for television, such as visits to film studios, ballrooms, parks, aerodromes, and so on—and where it is possible to write a script based on what normally happens at that place and televise it, dressed up so as to get the maximum amount of interest into the transmission. We are, incidentally, beginning a series of these features. For instance we have a monthly visit to a farm—the programme is called "Down on the Farm" and it is given on the first Wednesday of each month; at the moment viewers are very interested in a foal which is shortly to be born and a daily newspaper has already christened it "Decibel." Our viewers are very interested in Decibel and what will happen to her during the coming months. This, of course, is similar to the old film serial, but the difference is that in the films one knew more or less what was going to happen in the next instalment—in the case of television one has not the slightest idea what will happen. And this is where television does score over the film. When you see a newsreel of a fight you know already who has won. When you see a fight on television you have no idea who is going to win, and if the fight is good enough, indifferent technical quality can be and is overlooked to an enormous extent because the viewer is so wound up in the subject matter. For example, we recently televised the Boon-Danahar fight, and due to technical trouble, the picture quality was frankly poor, but we had marvellous notices in the Press simply because the fight was so good that the viewers forgot the poor quality. But then we televised the Harvey-Gains fight and put out really excellent pictures but got poor notices, simply because the fight itself was very dull. That is a fundamental difference between the films and television. In films the technical quality matters 100%—in television it should also, but at the moment does not, if the subject-matter is sufficiently interesting.

THE TECHNICAL SIDE

On the technical side there are three methods we use for transmission. The main station and studios are, as you know, at Alexandra Palace. We have mobile units which go to the place to be televised and from that place we have to get the vision or picture signal to Alexandra Palace; this is done by one of two methods—a special cable or radio. In the case of the cable we only need one van. When using the radio link we have to use four vans, a Control Van, a Complete Transmitter, a Power Van to generate power for the transmitter, and an Aerial van—a special machine similar to a fire escape. A mobile

Fire-escape Aerial

television unit thus consists of not less than one or more than four vans. The Control Van, the brain-centre, is connected either to the cable or the Transmitter van and to it are connected the cameras which, of course, use no film at all, the whole process being entirely electrical. The camera is connected to the van by not more than 1,000 feet of cable.

I know some of you have seen a lot of television and have criticised the camera work viewed by film standards. Now, television cameras have to be operated by engineers. There are 22 wires to this cable. The camera itself is a mass of valves and the whole construc-

tion of the camera and its adjustment is extremely complicated. You have to be an engineer to adjust it and make it work, and after much consideration the B.B.C. have presumably decided that it is quicker to teach an engineer how to operate a camera than it is to teach a cine-cameraman how to become an engineer.

The lenses in the new type of camera are substantially the same as in a cine-camera and vary from 2in. to 20in., and we are now developing a form of electrical "zoom" giving approximately a three to one ratio.

At the moment film has various uses to us apart from the straight business of televising shorts and feature films such as the other evening when 9-10ths of our programme was taken up with the film "The Edge of the World." Firstly, we do use film frequently to suggest atmosphere for a studio show; for example we recently televised an Eastern Cabaret, and to get the necessary eastern atmosphere we intermixed film shots of the East which helped to build up the programme. Similarly, in the case of outside broadcasts, we often preface an actuality transmission with a piece of film; we are now doing a monthly Coliseum programme and before this we always show a short film tracking shot coming down St. Martin's Lane and along to the Coliseum, thus helping to establish the location. As another example of the use of

Interior of the Scanning Van

film in television, we are proposing to televise direct from the Royal Academy during the afternoon of Varnishing Day and immediately preceding this we are proposing to show a film which we are shooting of the events leading up to Varnishing Day—pictures being sent in, the Selection and Hanging Committees at work and so on.

Finally, the man of the house is the person who usually buys the television set and he frequently grumbles because many of the best outside broadcasts take place during the day when he is not at home! Ultimately, therefore, I can think we must evolve a system whereby we can film the whole of an afternoon outside broadcast so that it can be repeated again on film in the evening. This would not be in competition with the newsreels because newsreels are usually shown some three days after an event has taken place, and even then they only show a small portion of it.

LIGHTING PROBLEMS

Some outside broadcasts, particularly evening ones, run into lighting problems. Adequate light and power is not always available and then we have to hire the necessary apparatus; and tied up with this problem is the actual sensitivity of the television camera. I think I am right in saying that it is substantially the same as Super X film stock used in conjunction with a 1.9 lens.

Film people are apt to criticise television lighting, and on the surface they are justified, but they do not realise certain things. A lens is a lens, admitted, and a lens on a television camera may be the same as a lens in a film camera, but what goes on behind the lens of a film camera is very different from what goes on behind the lens of a television camera. Apart from the fact that in television one is lighting in a few minutes for what is probably going to be a two-hour "take" and the lighting has to be suitable for long-shot, mid-shot, and close-up, the television camera suffers with a problem known as "Tilt and Bend." I cannot explain what it is but I have tried to write it down.

> "When scanning the mosaic of an emitron camera, in addition to the WANTED picture an UNWANTED spurious component or shadow picture, which if not got rid of by interposing correcting circuits, shows up as an inconsistent shadowing on the picture giving the effect of indifferent lighting."

THE FUTURE

One final word. The future of television. My guess, for what it is worth, is that the country will be covered by a series of regional stations. The studio activities will happen in London but each regional or provincial station will have an outside broadcast unit. When this will happen it is impossible for me to say. Again, it is impossible to forecast the eventual tie-up with the cinemas, but that films and television must work together is, I think, beyond all question. Summarising, we want your films—you want our outside broadcasts. Let's hope it turns out that all wants are fulfilled.

After a general discussion and questions the evening wound up with a television showing of "Picture Page" on a receiver kindly lent for the evening by the Marconiphone Company.

* * *

25 YEARS OF INDIAN FILMS

Congratulations to the Indian Film Industry which is twenty-five years old. Its Silver Jubilee was celebrated by a Motion Picture Congress held in Bombay last month.

Bombay, Calcutta and Madras are the centres of the industry which has now grown to such an extent that it occupies the eighth place among the major industries of the country. India now has nearly 1,500 exhibitors and 75 production companies, with a total investment of £13,000,000. Talkies gave a great fillip to the industry as the adaptation of sound to the screen overcame the great obstacle of illiteracy.

It is hoped that as a result of the Congress the Government will grant some sort of recognition to the industry and that greater organisation generally will result.

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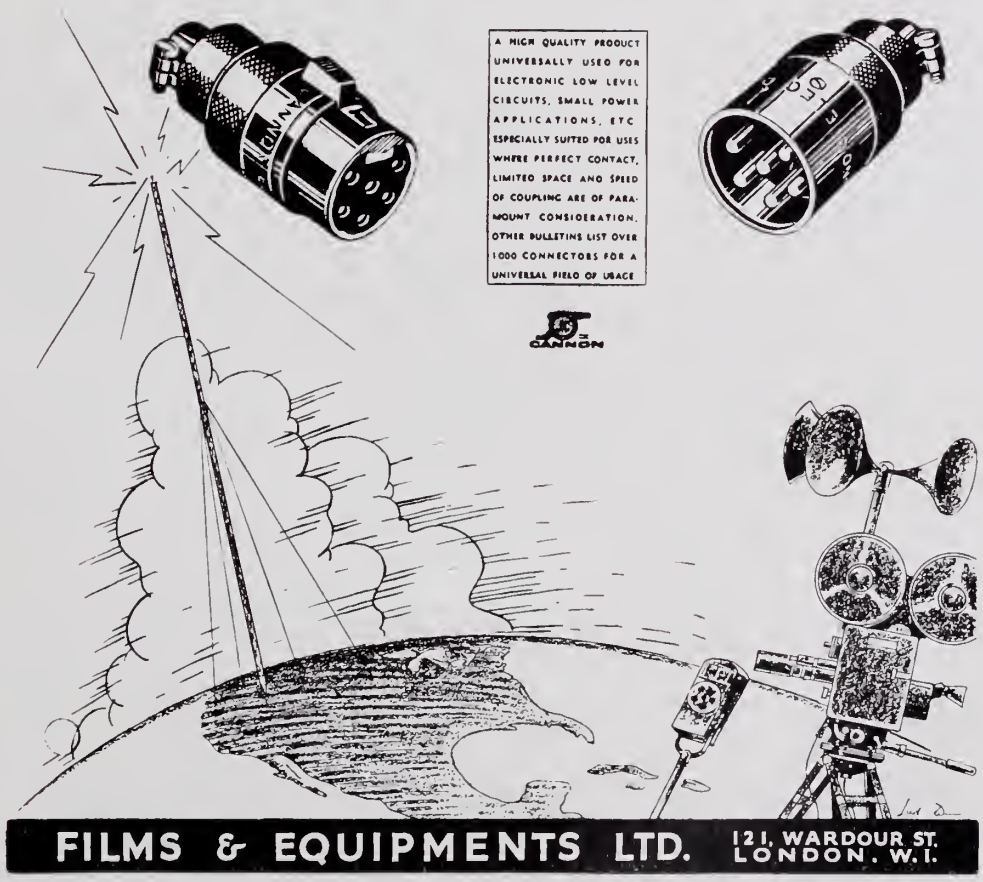

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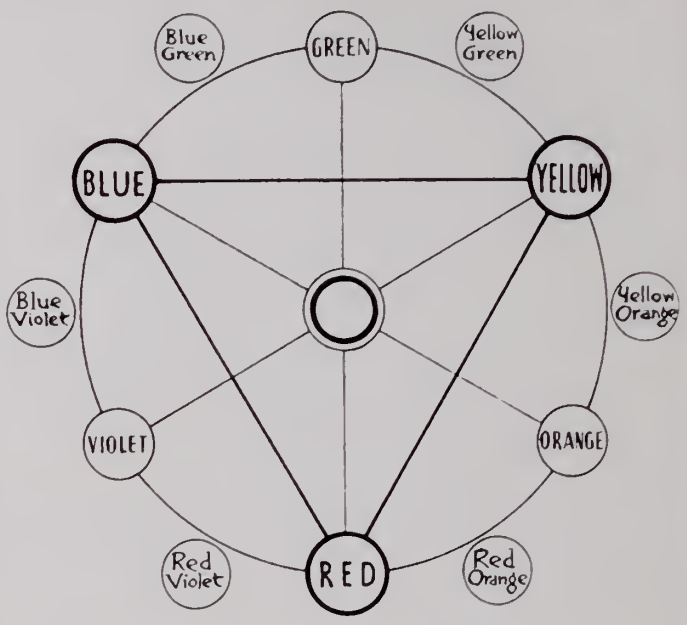
CINEMA LOG *By* Kenneth Gordon

A CHART FOR FILTER USES.

A simple guide to filters is given by A. Southgate Quittenton, A.R.P.S., in a recent "British Journal of Photography" which will interest cameramen. To ascertain the appropriate filter to use for a certain job or to be certain of the effect to be obtained by the use of a filter, a simple chart is used. The illustration shows the three primary colours at the corners of a triangle, and between them the appropriate secondary colours, i.e., violet between red and blue, green between blue and yellow, and orange between yellow and red. By this arrangement the complementary colours are diametrically opposed as indicated by the thin lines. The tertiaries are also shown, of which, in like manner, the complementary colours fall opposite to one another. A filter of like colour lightens and a filter of complementary colour darkens the shade to be rendered. The effect of a filter on the colour rendering of a subject can be readily conjectured, or the best filter to use can be calculated by reference to the chart. For example, suppose you have to photograph a poster printed in violet ink on blue paper the diagram will show at once that a yellow filter will blacken the violet to the greatest possible extent without darkening the blue too much, which would be the case if an orange filter were used. If the violet were reddish it would be seen that a yellow-green filter would give the best results. If photographing a subject containing red, orange and violet, and a panchromatic film of the very red sensitive type were used unfiltered, it would lighten the red too much at the expense of the orange and violet; a light green filter would probably give the right rendering; a yellow filter would tend to darken the violet and lighten the orange.

Modifications must be made to suit the sensitivity of various film emulsions to different parts of the spectrum, and to rectify various types of lighting. Some judgment is, of course, necessary when filming effect shots rather than those needing absolutely correct colour rendering.

The chart is based on the colour mixing chart in a handbook published by the Master Process Engravers' Federation.



Ronnie Neame teaches at Refresher Course

I have just completed the B.K.S. Refresher Course in camera-work and feel that I must compliment lighting cameraman Ronnie Neame on his lecture. His idea of illustrating his lessons on lighting by showing films which during their taking had each lighting unit switched on clearly demonstrating its function, and his pictures showing the matching in of model roofs and their lighting, will, I am sure, leave a permanent record in the minds of all those students who were present. His statement that speed and consistency are the main assets of a modern cameraman, the fastest worker always getting the job, is very interesting. He gave some figures to ram home his point. If a camera crew saves 10 minutes on a shot, and they do 15 set-ups a day, they will save 2 hours per day, or one full day's pay per week, and as most British productions take six weeks this speed of working will save six days' work or an approximate saving of £2,000 on the production. He also stated that the lighting cameraman must have a first-class eye for composition to turn out a work of art at speed.

The Wardour Street Lancers

An attempt is being made to form a Wardour Street Battalion of Territorials. I wonder how many remember what we "old sweats" called the Wardour Street Lancers. I think their "battle honours" were never fought and they were never defeated. They paraded from film office to film office and their lowest rank was "Captain." One gentleman appointed by the War Office was director General of Perforations. I'm afraid I missed my chance because I was a "Terrier" before the war and was mobilised in 1914. Then there was the Wardour Street Troop of the "Legion of Frontiersmen" which I joined, but after a couple of drills with broomsticks for rifles it fell through. The Wardour Street branch of the British Legion still functions and contains many film people who saw service in the last war. As an old Territorial I wish the new unit the best of luck.

The latest information is that the Kentucky Colonel is about to form a rival army to fight for democracy.

Spot Filament Photoflood Type Lamps

The documentary and newsreelers who use photofloods will be interested to learn that a new type of high intensity "spot" filament lamp has been put on the market of very low voltage and high wattage, in consequence of which the filament can be run at a considerably higher pressure than normally obtains in lamps of this type. These lamps are made in wattages of 60, 75, 100 and 200, and in course of preparation is the 400 watt which is expected to give equivalent light of a 2 KW lamp. All these lamps can be mounted in spots which will give full control when lighting. Owing to its great strength the filament can be brought very nearly to its melting point and maintained at that temperature for a long time. The light emitted from a filament increases very rapidly as the temperature rises, and instead of the

CINEMA LOG

(Continued)

normal rating of "halfwatt" they are for their current consumption "one-sixth watt." Spectrum test shows that while they have only 1-5th the intensity of a halfwatt in the red end they are rather more than 13 times brighter in the violet end. The light is pure white and for general colour photography does not require correcting filters. A 75 watt "spot" filament lamp gives a light meter reading equivalent to a 300 watt halfwatt lamp, and in actinic value for monochrome photography is equal to a 500 watt lamp. The light emitted is the equvialent of the "North Light," beloved of artists. Owing to their remarkable simplicity of construction they are of extremely low price and can be run from batteries if necessary.

Jack Wiggins Passes

I, with all members of A.C.T., regret the death of Jack Wiggins, the lab. chief. A cinema veteran, having been in the industry since 1897 when he was with the Biograph Company, he had in turn been cameraman and lab. worker and spent many years with W. C. Jeapes, but left to go with the disastrous National News. Jack was a very good friend and a sound commercial technician. His death leaves smaller that band of Bio workers who did so much to found our industry. Those left are, I believe, F. W. Baker, J. B. McDowell, M.C., O.B.E., and Emil Lauste, who are all still in harness.

Our Club is now one minute from Wardour Street

The National Trade Union Club went all cinema on May 1st, when Sir Walter Citrine, General Secretary of the T.U.C., opened their new premises in the heart of cinemaland at Central House, 12, Gt. Newport Street, W.C.2. This building, constructed in 1925 for Goldwyn, was later the offices of the P.D.C. Company, film distributors ,and is next door to the old Kinema Club, the home of early endeavours to organise the cinema trade. This club was the home of the Producers' Association, the Actors' and the late Kine-Cameramen's Society, and the headquarters of the first fight for the Quota Act. Its memory will always be a loving tribute to the late George Ridgwell who backed it.

A.C.T., being affiliated to the National Trade Union Club, welcome the Club facilities, on the first floor of which you will find a good restaurant, bar and lounge; a hall for conferences, dances and socials on the second floor; the third has Committee rooms and offices, and on top will be rooms accommodating 30, 40 and 100 persons, and the kitchens etc.

Being in A.C.T. entitles you to a year's membership for 1/-. Just the right place to wait for a job or do any writing and receive phone calls—much more dignified than lounging around in Wardour Street doorways.

The late Jack Wiggins

VOLUME FOUR

Our last issue completed Volume Four. An index is issued as an inset to this number. Self-binding Cases, large enough to hold two volumes of "The Cine-Technician" may be obtained, price 3/6 each (6d. postage extra) from A.C.T., 145, Wardour Street, London, W.1.

* * *

ROYAL PHOTOGRAPHIC SOCIETY

We shall be glad if all A.C.T. members who are also members of the R.P.S. will inform the Association of this fact, in order that the rebate on their subscriptions, which is due to the Association, may be claimed.

* * *

BELFRAGE TO LECTURE

Cedric Belfrage, who recently wrote a brilliant article for *The Cine-Technician* on Trade Unionism in Hollywood, has returned to this country and is lecturing to members of the Left Book Club Film Group on Wednesday, May 17th, National Trade Union Club, Central House, 12, Great Newport Street, W.C.2, at 8.20 p.m. Mr. Sidney Bernstein is taking the chair. All A.C.T. members are invited.

THE CINE-TECHNICIAN

SIX ISSUES A YEAR (January, March, May, July, September, November).

Associate Editors:

Max Anderson, Sidney Cole, George H. Elvin, Kenneth Gordon.

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RECORD ACHIEVEMENTS

A hundred and seven delegates from 26 laboratories, studios, production companies, and newsreel companies attended the Sixth Annual General Meeting of the Association of Cine-Technicians at Gatti's Restaurant, Strand, on April 16th.

THE PRESIDENT'S ADDRESS

THIS "CUCKOO FILM"

Mr. Anthony Asquith reminded members that last year he said that the Government had lost a great opportunity of putting the British industry on a sound basis. Merely to force foreign companies to make or acquire films in this country was no way to build up a true British industry. The only man who has any right to protection is the British producer. *By all means let us tax the importer in terms of production*—that any films are made at all is certainly better than that none should be made—*but do not give him the opportunity of using this pseudo British production, this cuckoo film, to oust the British film from its rightful nest.*

One hundred and three films only have been registered for the quota year ending March 31st, as compared with 228 for the previous quota year. *No Act can be said to be a success when technicians have worked an average of* 11 *weeks during that period.* And no Bill can be said to have stimulated genuine British production when we find that only 25 of the 103 films referred to were not made by foreign interests or made to the order of the renters for quota purposes.

DELEGATES TO THE ANNUAL MEETING
Inset (from left to right): S. H. Cole, George H. Elvin, Anthony Asquith, C. Tomrley.

A RECORD YEAR

But if it has been from the point of view of employment the worst year on record, *the Association has achieved more for its members than during any previous year in its history.* It is obvious, I suppose, that during times of depression Trade Unionism has an even more important function to fulfil in times of "boom." It is the only possible safeguard against reduced salaries and poorer working conditions. *But our Association can say with pride*

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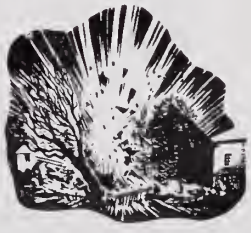

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that during this worst of years it not only prevented conditions deteriorating, but actually improved them in some extremely important respects. First and foremost, we have succeeded in negotiating an Agreement with the Laboratory Employers. It is early at present to survey the working of the Agreement, but on the whole it is clear that the majority of companies are observing the Agreement not only in the letter but in the spirit.

A word of warning need only be said to one or two companies who are not following the excellent lead given by the majority of laboratory employers.

CO-OPERATION WITH KINDRED ORGANISATIONS.

It has been a source of great satisfaction to us that we have now signed an Agreement with the Electrical Trades Union similar to the one which we already have with the National Association of Theatrical and Kine Employees. It has always been our policy to co-operate as far as possible with other employees' organisations in the industry, as we feel that by doing so not only will A.C.T. benefit, but organised employees generally. Another step in this direction is the arrangement we have come to with the Screenwriters' Association for close co-operation on matters of common interest. I am sorry to say that the British Association of Film Directors has not been quite so co-operative, and as a Director myself I particularly regret this. I trust this is merely a temporary lapse in the close co-operation between directors as a whole and the rest of the technicians. *Personally, I* deplore this false distinction between directors and other *technicians and I think it would be an excellent thing if we followed the example of Hollywood and France, where they are both organised within the same federating group.*

HOW TO STIMULATE PRODUCTION.

Dealing with the future of the industry, the President said it is obvious that the Quota Act as at present framed will not lead to the building up of a sound and prosperous British film industry. Quota rates are too low, and the whole function of the Act is merely to ensure that foreign renting interests make or acquire a certain number of films in this country. It does nothing whatever to stimulate voluntary production. While it is too much to hope for the revival of the separation of quota proposals we trust that the Board of Trade, in consultation with that somewhat elusive and secretive body, the Films Council, will try to devise some means of stimulating British production in the full sense of the word. *A Films Bank or Finance Corporation has been mentioned. A.C.T. would welcome this provided there are very full safeguards as to the control, not merely of the expenditure of the money, but also of the personnel to whom it is entrusted.* We know the melancholy effects on the film industry when finance was last easily available. We do not want the persons who wasted money on that occasion to return to the industry and waste still more. Another hindrance to voluntary production has been the difficulty which producers have found of getting equitable terms from certain distributors and to remedy this it has been suggested that there should be a standard approved contract in order to ensure that the renter has a continued interest in the success of the film after he has recouped his initial advance.

As an immediate step to stimulate production I would suggest the abolition of the treble quota film as is allowed by the Films Act. The advantages of double quota are sufficient to encourage the production of the bigger type picture, and the abolition of treble quota would definitely ensure increased production.

CONVERT THE HEATHEN

In conclusion, Mr. Asquith urged members not to slacken in their missionary efforts. "There are still heathen to be converted, but I am glad to say they are increasingly few. Flatter them, bully them, if necessary blackmail them, but make them join the Association —because only when A.C.T. is 100 per cent strong will it be able to ensure proper working conditions for all technicians employed in the British film industry."

SIXTH ANNUAL REPORT

In moving the Report, *Mr. George H. Elvin,* General Secretary, reported that since the laboratory agreement was signed the laboratory section had increased its membership by over a hundred.

LABORATORY AGREEMENT BENEFITS

He stated that an analysis of the laboratory agreement benefits showed that *of the workers covered by the Agreement 57 per cent. had received wage increases, comprised as follows:—*

Increase of less than 5s. per week	2 *p.c.*
Increase of between 5s. and 10s. per week ...	30 *p.c.*
Increase of between 10s. and 15s. per week ...	9 *p.c.*
Increase of between 15s. and 20s. per week	8 *p.c.*
Increase of over 20s. per week	8 *p.c.*

On matters apart from wages, 40 per cent. had benefited from increased overtime rates, 50 per cent. were eligible to benefit from the non-deduction of a sum equivalent to National Health Insurance when away sick, and 70 per cent. were eligible to benefit through a longer period of payment of wages while away sick. A number of workers would also benefit in other ways, including reduced hours in two laboratories, additional holidays in one laboratory, extra payment for night work in another laboratory, and other minor benefits. The number who might be worse off under the agreement through receiving decreased overtime rates, which had now been standardised, was less than 1 per cent.

Mr. Elvin criticised the scandalous fact that almost all the laboratory work done for the Government was done by non-union labour in laboratories which did not pay Trade Union wages or observe Trade Union conditions, and he was pleased to report that following questions asked in the House of Commons the matter was being taken up jointly by A.C.T. and the Film Production Employers' Federation.

THE BUDGET

The Chancellor of the Exchequer's film stock tax has staggered the film industry. Immediately the budget proposals were known A.C.T. protested to the Chancellor and asked him to reconsider the matter. Subsequently a fuller memorandum was presented, and on May 8th, Mr. G. H. Elvin and Mr. Thorold Dickinson together with Mr. George Woodcock of the T.U.C. amplified our objections to the Customs Officials. Mr. Tom Williams, M.P., was approached by the Association and made a strong protest in the House of Commons. The tax will cripple independent production and prevent the re-absorption of those technicians and workers who are to-day unemployed. Moreover, if the proposals go through the position will inevitably be further aggravated by displacement of labour in the newsreel, documentary and laboratory side of the industry, all of which will be severely affected by the proposals. A.C.T. will continue to make every effort to see that the proposals are amended and the British film industry be given the opportunity for a free and unfettered development.

STUDIO AGREEMENT.

Some progress has been made in the discussions, although there are still difficulties of a fundamental nature to be overcome. One pleasing feature, however, was that the Employers' Federation had accepted the principle of overtime payment to technicians.

"CO-OPERATIVE" FILMS.

Attention was drawn to the paragraph in the Report dealing with "co-operative" films. Mr. Elvin reported that the worst fears of the Association had been fulfilled. So far as he was aware not a single technician who was entitled under his contract to receive extra money from the takings of the first of such "co-operative" films had received a single penny, although it was definitely understood that already the gross takings on the film concerned had exceeded its production costs fourfold.

Kenneth Gordon
Vice-President and Trustee

FOREIGN TECHNICIANS

In the discussion on the Report the general view expressed seemed to be that the Ministry of Labour's policy on foreign technicians would never be entirely satisfactory and that sooner or later industrial action by the unions concerned would have to be taken as the only effective way of remedying any dissatisfaction.

A.R.P.

Mr. Alan Lawson, who had been working for over a year as a cameraman in Spain, gave illuminating details of the air raid precautions in that country and he thought it was clear that from practical experience obtained in that war the precautions taken by the Government generally, and so far as our own industry was concerned by the studios and laboratories (with one or two notable exceptions) were entirely inadequate.

THE INTERNATIONAL SITUATION AND FILM PRODUCTION.

A special emergency motion (carried nem. con.) on the international sitnation and British film production was moved by *Mr. Thorold Dickinson* (General Council), who said that some members might wonder why it appeared that A.C.T. had gone all political and he assured them that the General Council had not done this lightly. *It was impossible in these days, he said, to dissociate politics from industry and particularly the effect of the present international situation on British film production.* To-day there were only eight pictures being made on the 75 stages in the industry, and this was not surprising in view of the fact that returns from production did not generally come back for about 12 months, and the danger of war breaking out is too great a risk to justify such expenditure. *It was, therefore, Mr. Dickinson concluded, in the direct interests of our industry to support a policy of a really firm stand against aggression, since the alternative for the bulk of film technicians can only amount to a continuance of unemployment while the country is not engaged in war, or in time of war a transfer to military service or war industries for themselves and constant danger from air raids for themselves and their families.*

Mr. Kenneth Gordon (Pathe Pictures) defined the attitude of the Association to National Voluntary Service and said that A.C.T. would follow the general policy being pursued by the Trade Union movement and that in any co-operation which might be required from its members it would insist that there be full safeguards of the Trade Union and other rights of its members.

THE SCREENWRITERS' FRATERNAL DELEGATE.

Mr. J. B. Williams addressed the meeting on behalf of the Screenwriters' Association. He wished the Association every success and expressed the desire of the Screenwriters' Association to co-operate with the A.C.T. on quota and all matters of common interest. He criticised very strongly the Films Act, and expressed the opinion that in its present framework it would be impossible to build up a sound British film industry. He drew attention to the fact that a very large number of British actors and actresses, and certain leading British directors, were now in Hollywood. Mr. Oliver Stanley had recently said that industry must export or die—it appeared that the British film industry was doing both.

AMENDMENTS TO RULES

A motion was unanimously passed increasing the basic composition of the General Council from 10 to 15 members, six of whom shall be laboratory members.

A move to alter the name of the union to "The Association of Cinematograph Technicians" was narrowly defeated by eight votes.

AMALGAMATION AND TRUSTIFICATION

Mr. Ralph Bond (Realist Films), in moving a motion (carried unanimously) on behalf of the General Council, drawing attention to the amalgamation and trustification in the industry, said that *the influence of big outside industrial and financial interests was making itself more and more felt both in production and distribution, which are increasingly coming under the control of the same interests.* He gave details and referred to the merger of the two greatest studios actually in production (Denham and Pinewood), together with the subsequent purchase of the white elephant, Amalgamated Studios, as undoubtedly being the most important single event affecting studio workers and technicians which had taken place since the last Annual Meeting. *The merger represents a vast pooling of financial resources, and an act of rationalisation calculated to have a detrimental effect on the interests of employees.* Mr. Bond drew attention to the serious effect all this gigantic trustification is having on the employees and said that when the Denham and Pinewood merger took place

Captain Norton made a statement to the "Middlesex Advertiser and County Gazette" to the effect that the merger was a grand thing for the industry and that it would probably not affect the employment of more than five persons. When Pinewood Studios are normally working employment is given to at least 750 people. Not a picture had been turned there since Christmas. The merger has meant not five but hundreds of technicians and workers have been thrown out of employment and only a small handful have secured employment at Denham and then only in a temporary capacity. The members of other Unions in the industry have been similarly affected.

In conclusion, Mr. Bond said that this new situation could only be met by organisation, by virile trade unionism and by closer and closer co-operation between all the organisations catering for the employees.

Mr. Alex Fisher (late Pinewood), in seconding the motion, spoke as one of those affected by the trustification referred to in the merger. He drew attention to a recent statement of Mr. Charles Boot alleging that one of the reasons for the closing down of Pinewood Studios was the high salaries and extravagant allowances to technicians. He strongly deprecated such statements, which were entirely untrue, and said that the technicians' salaries amounted to less than 4 per cent. of the production costs. If every technician worked for nothing the profit or loss on the majority of pictures made would still be little affected.

AFFILIATION TO THE LABOUR PARTY.

Mr. S. H. Cole (on behalf of A.T.P. Studios) moved a motion advocating the taking of a ballot of members on the question of affiliation to the Labour Party, subject to

Edgar Thorne
the Laboratories' Vice-President

Ralph Bond
newly-elected Vice-President

60 per cent. of the members voting in favour of the affiliation. (Motion was carried 50—9, with several abstentions). He said that in political matters it had almost invariably been the Labour Party in the House of Commons which had fought on behalf of A.C.T.'s interests. At the present time it was impossible to divorce industry from politics and he felt that affiliation to the Labour Party was merely a logical step forward in the progress and growth of the Association.

QUOTA INCREASES

Mr. Thorold Dickinson (General Council) drew attention, in moving a motion, carried unanimously, to the unanimous view of all employees' organisations in the film industry that increase of quota was the only immediate practical measure to end the present slump in British film production. *He stated that, notwithstanding the recommendation of the Films Council to the contrary, the employees' organisations would continue to agitate for such increases.*

FILMS COUNCIL SECRECY

Mr. Dan Birt (Nettlefold Studios) moved a motion (carried unanimously) deprecating the secrecy surrounding the proceedings of the Films Council, which, amongst other things prevented representatives of the various interests, including the employees, from reporting back to their organisations.

Mr. Elvin (General Secretary) said that he was one of those who strongly deprecated the secrecy surrounding the proceedings of the Films Council. He pointed out that the body was merely an advisory one to the Board of Trade, but as far as he was aware there was nothing to prevent that body issuing fuller statements. He felt that the present secrecy was not fair either to the trade or to the public, and that as the Films Council existed to help the industry, general publicity would, on the whole, help it in its deliberations. Moreover, he felt the secrecy which existed was giving a wrong impression of the policy and activities of the Films Council, and action in accordance with the demands in the resolution would make that body a much more valuable one.

In reply to the request for details of the activities of the Council, Mr. Elvin gave in confidence to members a

resumé of its activities.

DOCUMENTARY MOVEMENT

Mr. Gray (G.P.O. Film Unit) drew attention to the considerable delay in negotiating an Agreement with the G.P.O. Film Unit. The Secretary, on behalf of the General Council, outlined the steps which had been taken by the Association to expedite matters and said that the General Council would use every effort to get considerable progress made. *He deprecated the attitude of the Post Office as much as the mover of the motion, particularly the fact that the salaries paid to employees are on the whole much below those paid in other documentary groups, several of whom work under agreed A.C.T. salaries and conditions.*

POLITICAL CENSHOPSHIP OF NEWSREELS

Mr. C. Tomrley (Progressive Film Institute) moved a motion, seconded by *Mr. H. P. J. Marshall* drawing attention to the tendency towards one-sided political partisanship in certain newsreels. The resolution, which was carried unanimously, urged the A.C.T. to support any efforts that may be made towards combatting political censorship of newsreels.

ELECTION OF OFFICERS

President

The Hon. Anthony Asquith was unanimously re-elected President and in announcing his election to the meeting the General Secretary paid a tribute to the activities of Mr. Asquith during his past year of office. "We are doubly proud of our President," Mr. Elvin said, "not only for the very fine work he has done as President but also for his brilliance in directing one of the best British films of the year."

Reg. Bartlett, elected Trustee

Other Officers

Other officers elected were:—

Vice-Presidents: Ralph Bond, Sidney H. Cole, Thorold Dickinson, Kenneth Gordon and Edgar Thorne.

Treasurer: S. G. Hawes.

Trustees: R. B. Bartlett and Kenneth Gordon.

Auditors: Miss Toni Roe and A. J. W. Nurton.

General Council: R. B. Bartlett, Dan Birt, H. Craik, Desmond Dickinson, Alex Fisher, E. A. Graham, A. Lawson, T. S. Lyndon-Haynes, Ivor Montagu and Miss M. Habberfield.

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LAB TOPICS

Three stages in the Air Raid Precautions at Olympic Kine Laboratories

A.R.P. AT OLYMPIC LABORATORIES

The Government's call to industrial concerns has been answered with zest and promptness at Olympic Laboratories at Acton.

It all began in the critical days last September when a hurried decision was made to dig a trench for protection on land adjoining the buildings. This meant despoiling a lawn in front of the main building, much to the disgust of the gardener, but everybody meant business, so turves were sliced off the cherished lawn, spades got busy, and professional help obtained. It was surprising to see how far down those engaged on the job dug in the course of a day helped by everybody's determination to prepare for the worst if it happened. Stacks of timber and corrugated iron arrived, floodlights rigged up and work carried on all night. The job was well on the way to completion.

Then came the Munich Agreement. Christmas passed.

The rain and melting snow had all but filled the trench with water and we got accustomed to seeing mounds of clay about us. But the management soon realised that something must be done about it and decided to line and cover the trench with six inches of reinforced concerete.

The actual construction is now nearing completion. Protective accommodation will thus be provided for all occupants of the laboratory in the event of air raids in this 130ft. long trench. It is sewer drained so that no trouble will occur from flooding during rainy seasons, electric lighting is to be installed and sick-bays so that cases of shock or fainting can be attended to whilst still under cover during a raid. Needless to say a first aid kit will find a place in a handy spot and lavatory accommodation, with running water, built in at convenient places.

There is an entrance each end and an emergency exit half way. Entrances and exit will be provided with a gas proof curtain. As a finishing touch to a very good job of A.R.P. work, the top soil covering is to be returved, restoring the appearance of the lawn to something like its former state.

In addition to this underground protection, the firm have authorised lectures to be given on anti-gas measures by one of the staff who is a local A.R.P. warden, and a first aid squad and auxiliary fire fighting squad have been organised. Each unit is undergoing instruction with the local St. John Ambulance unit and Acton Fire Brigade.

IN SHORT—O.K. LABS A.R.P. is O.K.

UNITY THEATRE

Sixty members recently made up a party to see "Babes in the Wood" at the Unity Theatre. This has outlived all the other London pantomimes and by the way it continues to play to packed houses may very well catch up with next Christmas's shows. The record is all the more remarkable seeing what "Unity" is. "Babes in the Wood" has political point in keeping with the theatre's policy of establishing a drama which deals with realities and reflects contemporary life, instead of plays which serve as a laxative and depict false ideas of life. The theatre is fulfilling an excellent purpose. The above outing was the first result of the Lab Committee's affiliation. All lab members can now, by arrangement with Head Office, see Unity's productions. It will cost very much less than going to a West End show and it will be very worth while if you are interested in the world around you.

ALL FOR A PENNY A WEEK

That's all it costs to belong to the Automatic (Barnes) Social Club. Next door neighbours, Cinit Labs. can also join. And our General Secretary says it's worth it! He was invited down there the other evening. The "Spurs" Hotel was the address—K.K.K.K., the brew. Fun and frolic, games and dancing—and elbow lifting went with a swing, just as the ceiling seemed to go towards closing time. A penny a week gives members the right to socials, dances, sport—including a tennis club—and a couple of summer outings. Wonderful value for money and a fine institution provided it continues to be run along the present excellent lines. Any lab secretary who wants to know how it's done should have a word with Mr. Storey. Or better still try a basinful yours If. We know you'll be welcome at one of their "do's"—but take your iron constitution with you!

LAB TOPICS

(Continued)

LAB SOCIAL CLUB

A most enjoyable evening was spent by A.C.T. members and friends on March 18th at a dance organised by the Laboratory Social Committee at the Imperial Hotel. Russell Square. Dancers were rather tardy of arrival, though nearly 200 eventually turned up; but Mr. S. Gregory, as M.C., in spite of this not only managed to get things going bright and early, but also to keep them going as only a capable M.C. can. It would be difficult to speak too highly of Johnny Shaw and his Avalonians; the greatest compliment we can pay them is that we hope to dance to their music on some future, and not too distant, occasion.

Spot prizes were won by: Mr. A. Bowman and Miss R. Symonds, Mr. Fisher and Miss Noutch (of Pathe Pictures).

GRAND SUMMER OUTING

(Organised by the A.C.T. Laboratory Social Club)

SUNDAY, JUNE 25th, 1939

to

MARGATE

Leave Charing Cross ... ... 10.00 a.m.

Depart Margate ... ... 9.10 p.m.

LUNCH & TEA WILL BE SERVED AT MESSRS. SAM ISAACS' RESTAURANT, MARGATE

Nine Glorious Hours by the Sea—Lunch and Tea inclusive

All A.C.T. Members and Friends Invited
Tickets 8/6 each

Further details can be obtained from the A.C.T. Lab. Social Club Secretary, 145, Wardour Street, W.1.

Many thanks are due to the Lab. Social Committee who, we are certain, sacrificed much time, and gave a great deal of thought, to the organising of this dance. It is a great pity their efforts were not better supported. We hope the Committee will continue to organise such enjoyable functions, and that members will in future give it the support it most certainly deserves.

Their arrangements for the Summer Outing to Margate on June 25th are now complete. We look forward to a very enjoyable day, knowing this Committee does not do things by halves.

We urge all A.C.T. Lab. members to support the Lab. Social Committee. Remember that all its profits are ultimately returned to you, in the form of social evenings, outings, etc.

Let's have no further lack of support.

RECENT PUBLICATIONS

(Continued from page 31)

Studies"—they refer to his study "The Milk Girl"—and see whether you, too, do not immediately want to go off with a camera and discover the sublime in every day life. ". . . youth shall enter at the last, and the lines on her face are the shadows cast by the sun as she rides her bicycle, with side-car attached, to the rattle of milk bottles at seven o'clock on a summer morning.

'The Milk Girl' was taken in a Dorsetshire village, at the hour when lorries pound their tune of modernity beside the river which flows under the white railed bridge, over which she makes her rounds. Another character study, an echo of the pages of Thomas Hardy, that reminds the photographer who is searching for the picturesque that machinery must still give place to relics of an older day."

BRITISH TRADE UNIONISM TODAY
By G. D. H. Cole and Thirty Others (Gollancz, 7/6 net)

G. D. H. Cole has rendered an invaluable service in this brilliant survey of the growth and character of the British Trade Union Movement, the first book of its kind since the publications of the Webbs at the end of the last century. He has not fallen into the mistake of many critics of the Movement and ignored official views, however much at times he may disagree with them. Thirty experts, many of them leading trade union officials, have contributed signed chapters. At times this makes for contradictions. Mr. Cole puts forward one view—a trade union contributor another. But that is helpful and healthy.

It has often been said that the trade unionist of today would be a far better one if he knew a little more of the struggles and history of his predecessors. This book will supply that information. Also, from the angle that history repeats itself, the chapter on trade unionism in war-time should be read by all those who doubt Chamberlain's declaration that peace is assured for our generation.

Those workers—and many are still to be found—who are dubious of the value of trade union membership will find all the answers here. Tom Johnston in his contribution claims that without the Trade Unions and their activities Scotland might today be little better than a coolie plantation. And he gives facts and figures to prove it.

Mr. Cole's collaborators include leading officials of the principal unions, last year's President of the Trades Union Congress, experts on trade boards, the law, the unemployed, and finance.

The book has its faults, but they are mainly minor inaccuracies. The book might have been more carefully edited to prevent contradictions due to changes between writing of the chapters and their publication. Presumably some of the chapters were written more than a year ago: hence the reference to last year's T.U.C. President as the present President; a statement that the secretary of the London Trades Council and British Equity are the same individual (true a year ago but not today); and different membership figures of at least one union according to Mr. Cole and another contributor. Finally, why not call the A.C.T. by its proper name? These small points will, we hope, be corrected in a subsequent edition, and to ensure there are subsequent editions every trade unionist should not merely read but study this book. They will be better members for it. G.H.E.

TECHNICAL ABSTRACTS

CENTENARY OF PHOTOGRAPHY (Edward Epstean)

(S.M.P.E. Journal)

This excellent article gives a brief but full description of the early days of photography. After dealing shortly with the early experiments in optics and chemistry of the early and middle ages, which gave the camera obscura and discovered the reaction of silver halides to light, it goes on to describe fully the pioneer work of Niepce and of his partnership with Daguerre.

The work in England at the same time is next mentioned. Sir John Herschel's early work and his discovery of hypo as a fixing agent, to him too is due the credit of inventing the word "photography." Fox Talbot and his work on callotypes was the next step and was the best until the clumsy but much superior wet colloidon process superseded it. From then on development was quicker—first the dry colloidon, then gelatine emulsion, and with Eastman's film the beginning of present-day photography.

With a brief glance at the work of Wheatstone and Brewster in England, on stereoscopic photography, the article passes on to the beginning of cinematography. Here again persistence of vision and its uses to give a semblance of movement were known from the earliest times, but Faraday was amongst the first to give it serious investigation. A certain A. B. Brown of America, in 1839, devised a shutter and maltese cross arrangement, and is the first trace of the modern cinema.

Work pursued by an American, Muybridge, and a Frenchman, Marey, in an effort to photograph horses at speed during the 70's of last century, were the beginnings of attempts to photograph and reproduce movement. With the help of an engineer, D. Isaacs, they evidently met with some success.

Jenkins in America was also at this time doing some early pioneer work on what he called the "Phantoskop." From this point the work of the Lumiere brothers in Paris, and Friese-Greene in England, bring the development of cinematography almost to within memory.

J.G.

NEW SIMPLEX PROJECTOR

(S.M.P.E. Journal)

A greatly improved projector is described here. It does not, however, incorporate any radical changes. The most interesting feature is the new shutter which is only half the width but in two portions, half behind the gate and half in front of the lens system; owing to reversal of the picture in the lens each of these narrower shutters cut off opposite halves of the picture during the change, but, of course, the light transmission to the screen is increased by as much as 15%. An oil lamp feeds oil to all points in the mechanism and reduces oiling to one point. There is a new and especially sensitive trip mechanism which goes at the slightest abnormal variation of the upper loop. A new gate has also been designed which eliminates any trace of side movements. Intermittent action and an improved racking device are other features.

J.G.

CHANGES ALL ROUND

("American Cinematographer")

Changes in emulsion speeds necessitated corresponding changes all along the line to maintain good cinematography. Joseph Valentine, A.S.C., found it possible to reduce his lighting level 70% by using less wattage and, especially in the case of "broads," more diffusion. He recommended, until the eye could read the new level, the use of a photometer. He regarded the most important single factor in dramatic cinematography as the relation between the colour sensitivity of an emulsion and the reproduction of pleasing flesh tones. He thought that with the increase in film speeds the response to the red elements in make-up became more noticeable. Speaking photographically, faces were high-lights and a a high-light response that would not be noticeable on a slower film became more apparent on the more sensitive stock. The standard panchromatic make-up was a range of warm brown tones, all of which contained a considerable proportion of red. Hitherto these tones had been neutral and gave a correct monochromatic rendition of face tones. Now, however, the red components registered with abnormal intensity whilst the other components remained roughly the same. A new make-up range was therefore evolved in co-operation with Universal's Make-Up Chief, Jack Pierce, and the Max Factor Organisation. The red element was reduced and Kodachrome set stills proved the tests also suitable for colour work. Only a thin make-up coating needed to be used in order to utilise the natural flesh tints, this make-up was suitable, too, for the corrective technique. Powder and lip rouges completed the range. Regarding set painting and decor, a system was evolved in collaboration with Art Director Jack Otterson, consisting of four standardised pastel tones: violet-grey, blue-green, pink and tan. Each of these in turn being divided into four standardised shades from No. 1, a light shade which was virtually a pure colour, to No. 4, a dark shade. The darkened numbers were produced not by deepening the colour but by greying it. This meant a total range of sixteen colours each a known factor to the cameraman and the art director. The whole article is recommended to keen students.

T.S.L-H.

NEW R.C.A. SOUND HEADS

The new Photophone sound heads are claimed to add "studio presence" to reproduction and to give greater ease of operation. Improvements include a shielding for the photo-electric cell transformer to ensure absence of static noise, the sound head itself is easier to remove, an oil drip eliminator prevents drip from the picture head reaching the sound head, double exciter lamps, a light shield in front of the optical system avoiding hum from modulation of the sprocket-holes and a shock-proof drive for the constant speed sprocket shaft preventing transmission of gear backlash.

T.S.L-H.

(Continued at foot of next page)

RECENT PUBLICATIONS

New books on photography reviewed by P. E. Rowan.

U.S. Camera Annual Edited by T. J. Malony
(The Fountain Press, 15/-)

HERE is a book which, although its interest is world-wide, has an appeal which is peculiarly American. To define this one must compare it with our own photographic year books, which adequately and efficiently select a choice of outstanding photographs for presentation. These collections display, under sub-titles such as "Landscape," "Child Photography," "Portraiture," "Nudes" and "Animal Photography," the finest examples of work done in selected and accepted spheres.

The U.S. Camera Annual however does not confine itself to preconceived ideas of salon standards. Rather, it is a dynamic record of every angle of modern still camera work as executed by American propaganda, newspaper and administrative as well as landscape and portrait photographers. It is a vivid record of the America of the year A.D. 1939 in photographs.

TECHNICAL ABSTRACTS

(Continued from previous page)

COLOUR-COUPLING DEVELOPERS FOR TONING PROCESSES (K. FAMULENER, Agfa-Ansco Corp.)
(S.M.P.E. Journal)

Three independent colour forming developers are used; magenta, blue green, and a yellow. By varying the time of development in each solution used a long range of tones is available under reproducible processing conditions. In a machine thus adapted to colour development, to vary the tone it is only necessary to vary the number of strands in each colour developer. As an example, a green is formed by developing for 2½ minutes in the blue green developer, and continuing for 4½ minutes in the yellow solution. A high contrast developing agent is necessary in the coupling developer and hydroquinone proved quite satisfactory for this purpose. Hydroquinone was used in two ways; first by addition to the single solution developer containing both a developing agent and a coupling agent. This was quite satisfactory.

The second method made use of a two solution developer in which the first solution consisted of hydroquinone, diethylparaphenylenediamine, a weak alkali, and bromide; the second consisted of the coupling agent together with a strong alkali and bromide. This two solution system offers several advantages. The keeping qualities of the two solutions were very good and uniform results were obtained merely by replenishing the first solution. Moreover, with a two solution system accurate control of time in each solution is not as important as it is when using a single developer. In most cases reaction goes to completion and the time-gamma curve flattens out, resulting in considerable latitude. Developing for 3 minutes in the first solution and 5 minutes in the second, a gamma of 1.65 to 1.71 was obtained, according to colour required. Temperature 70° F.

Alphanapthol was used as the coupler for blue, dichloracetoacetanilide to produce a yellow image, and phenylmethylpyrazolone to produce a magenta. A special fix-hardener must be used consisting of hypo, sulphite, and alkaline formaldehyde. The usual fixer will bleach out the dye image.

E.T.

Dedicated to Edward Streichen, it opens with a selection of this great master photographer's work, beginning with a self-portrait executed in 1898, and demonstrating his deft, sure touch throughout nearly half a century, up to a colour fantasomnia entitled "Hurray, Hurray for the U.S.A."

So it crescendos through a saga of America to-day, as seen through the eyes of her most able still cameramen.

Champions All By R. E. Hall. Notes by T. D. Richardson.
(Frederick Muller, 15/-)

AFTER the many films which have been made on Winter Sports in Switzerland, it is interesting to find a book which tackles the problem of making a still documentary of the same subject.

It is chiefly worthy of note because, although literally a "still" record, each photograph is an action picture, taken at that infinitesimal moment when composition is most nearly perfect. The technical perfection, has, in other words, been sacrificed for the making of an *action* rather than a *pretty* picture, with some very fine results. The written commentary is by T. D. Richardson, and the contents will prove a goldmine for skating enthusiasts.

For those more interested in theory there is an invaluable little book, published by the Fountain Press at 5/- entitled "Snow and Ice Photography" by H. W. Wagner, finely illustrated and containing an abundance of fact and data.

"Modern Portraiture" By Stanley S. Jordan.
(Fountain Press, 15/-)

HERE is a new and enlightening treatment of the subject of Portraiture. The preface refers to the author as "introducing the technical methods of Hollywood to still portraiture."

He also introduces fresh and diverting psychological approaches to the subject, covering hitherto new and unexplored angles of treatment.

He does not ignore practical technical issues, and one chapter in particular on lighting is valuable, and well illustrated to prove the importance of this primary aspect of such photography.

Other chapters cover the subjects of exposure, Max Factor Make-up, camera angles, and choice of subject, and all are graphically illustrated.

For anyone who is considering taking up portrait photography seriously, this book should prove invaluable, touching as it does this little mentioned phychological aspect so ably.

Photography of the Figure By Charles Simpson, R.I.
(H. F. & G. Witherby, 21/-)

A FIRST-CLASS book, readable, informative and inspiring to both the proficient and more "amateur" amateur. It is in fact the sort of book which is liable to make those who have never held a camera in their hands go straight off to the nearest dealer and acquire one.

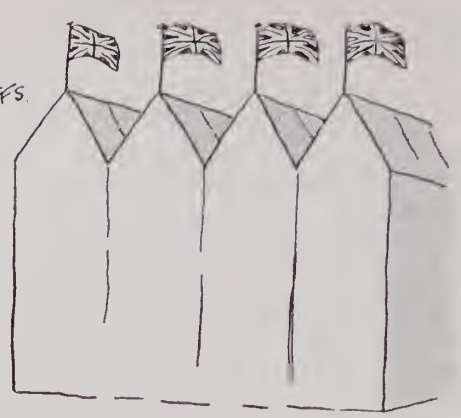
Charles Simpson inspires one to experiment, and lifts photography to a plane beyond the mere discussion of apertures, light meters, developers and lighting. Listen to the last words of his chapter on "Character

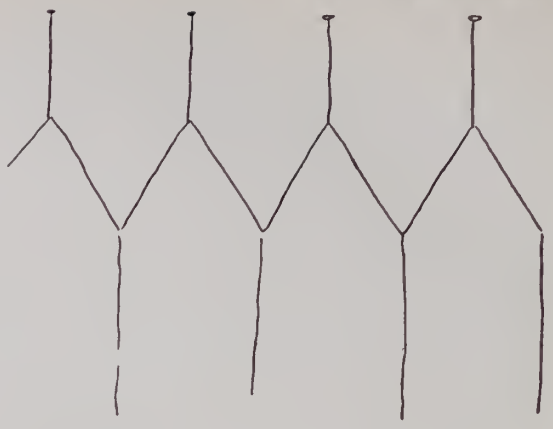
(Continued on page 29)

AND SO IT GOES ON

BY PIGSWILL

AT CERTAIN BIG STUDIOS WITH LARGE FLAG-STAFFS. THERE USED TO BE A UNION JACK FLYING FOR EVERY ENGLISHMAN EMPLOYED. BUT THINGS





HAVE CHANGED A LITTLE, & NOW THERE'S A FLAG FOR EVERY FILM IN PRODUCTION.

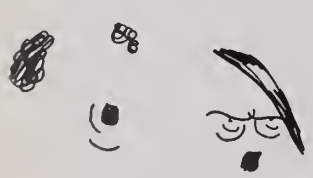
ALTHOUGH FIRST APPROACHED 2 YEARS AGO, THE POST OFFICE STILL DELAY DISCUSSING THE WAGES & CONDITIONS OF THE GPO FILM UNIT. OUR SECRETARY HAS THEREFORE ADOPTED THE FOLLOWING THEME SONG ON THE SITUATION:

"A-TISKET A-TASKET
A BROWN & YELLOW BASKET:
WE SENT A NOTE TO THE GPO
SO MANY MOONS AGO.
WE WROTE AGAIN & YET AGAIN
AGAIN & AGAIN & AGAIN & AGAIN—
AND IF THEY DO NOT ANSWER SOON
OF OLD-AGE I SHALL DIE."

INSPIRED BY UNKIND REMARKS ABOUT THE "HIGH SALARIES & EXTRAVAGANT ALLOWANCES TO TECHNICIANS," BEING ONE OF THE REASONS FOR THE CLOSING DOWN OF A STUDIO, TOGETHER WITH A HINT FROM SOMEWHERE ELSE THAT LAB. WORKERS WOULD BE DEGRADED IF THEY SANK SO LOW AS TO BE PAID OVERTIME.

SUGGESTION CORNER. — FOLLOWING THE GREAT FILM

MOUSTACHE CRISIS



HERE'S HOPING FOR A GREAT NEW ALL-WARDOUR STREET PRODUCTION WITH A WELL-KNOWN MEMBER AS THE RIVAL STOMACH.

SUPPOSE THE TROUBLE WOULD THEN ARISE AS TO WHO HAD IT FIRST!

BELL & HOWELL

Non-Slip 35mm Sound Printer

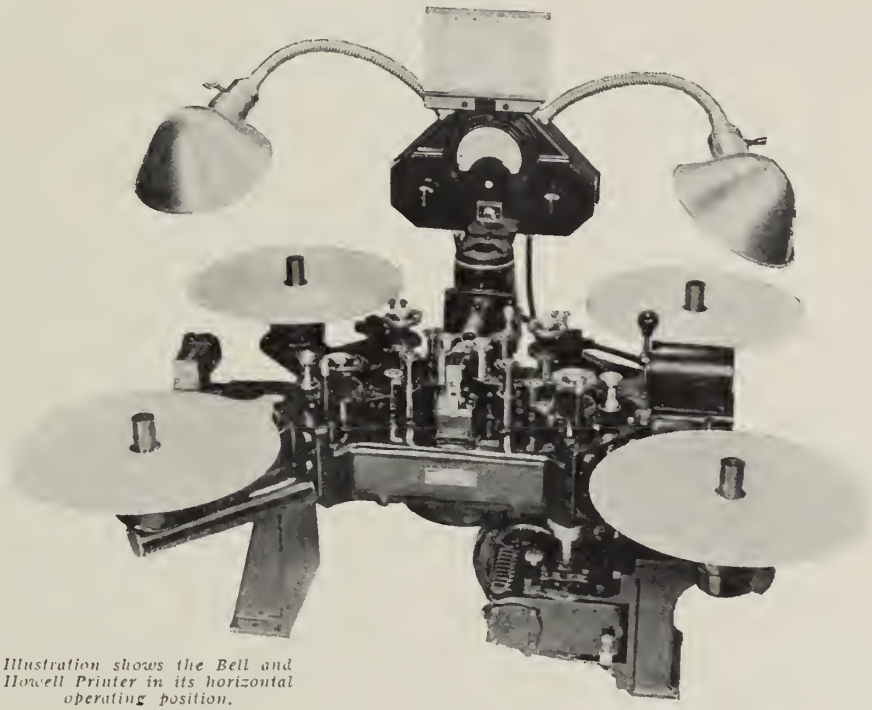


Illustration shows the Bell and Howell Printer in its horizontal operating position.

This Bell & Howell Non-Slip 35mm. Sound Printer consists of a printer specially produced to print sound negatives only, on to positive film. It is of the non-slip type with provision for bringing the negative film and the positive raw stock into close contact by means of pressure applied at the printing point. The negative film is wrapped around approximately half the periphery of a rotating drum, the positive film being held in contact with it by a rotating pressure roller. The pressure exerted is sufficient to create traction between the two films without any damage to either. The diameter of the sound drum and the pressure roller are such as to permit accommodation, without slippage, of two films whose lengths may differ from 0 to 1.2% with respect to each other.

The printer operates in a horizontal position to relieve both films from any unnecessary stress and to keep them free from possible damage which might be caused by lubricating oil dropping upon them. A full specification will be sent upon request.

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Pitchfords

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THE JOURNAL OF THE ASSOCIATION OF CINE-TECHNICIANS

THE CINE-TECHNICIAN

9d

JULY AUGUST 1939 NO. 22

GEORGE H. ELVIN
KENNETH GORDON
A. E. JEAKINS
ANGUS MACPHAIL
LUISE RAINER
PEN TENNYSON
CLOSE-UPS
QUERIES AND ANSWERS

IMPRISONED BY THE NAZIS

MADNESS AND MOVIE MAKING

LIGHTING FOR NEW FAST STOCK

THE CENTENARY OF PHOTOGRAPHY

ENTHUSIASTIC RECEPTION

Never before have new negative materials been so enthusiastically received . . . so quickly put to work . . . as Eastman's three latest motion picture films. Fast, fine-grained **PLUS-X**, for general studio work . . . high-speed **SUPER-XX**, for all difficult exposures . . . ultra-fine-grained **BACKGROUND-X**, for backgrounds and all-round exterior work. Typically *Eastman* in uniformity and photographic quality, these films have won immediate acceptance in the industry.

EASTMAN PLUS-X
SUPER-XX · BACKGROUND-X

***NOTE*:**—Technical data concerning these new films have been supplied to cameramen and laboratories. Further copies of these particulars will gladly be sent on request to I. D. Wratten, Motion Picture Film Technical Services, Kodak Limited, Kingsway, London, W.C.2.

THE CINE-TECHNICIAN

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Number Twenty-two, Volume Five JULY—AUGUST, 1939 Price Ninepence

Bombardier Billy Wells, Pen Tennyson and Jimmy Hanley absorbing atmosphere for "There Ain't No Justice"

PEN TENNYSON

on

Madness and Movie Making

"Pen" Tennyson, for many years assistant director at Gaumont-British and an A.C.T. pioneer at that studio (he took a large part in the negotiation of the Agreement there), recently got his well-deserved break as a director. His film, "There Ain't No Justice," made for Michael Balcon at Ealing Studios, was very well received by the trade, an augury of more good efforts to follow. In this article he tells us what he thinks about assistants and directors.

I HAVE always held the view, based on a considerable and chequered experience as an assistant director, that all film directors are mad and that most assistants must in due course become so. The two most clearly recognisable types of directorial maniacs being:

1. The "Hunted" Director," who suffers from an advanced form of "Persecution Complex." This type is convinced, in spite of abundant evidence to the contrary, that everybody is conspiring to prevent him making a good picture—artists, producers, writers, technicians and even his wife, should she venture to remind him that he is a human being as well as a cine-technician. This species may be recognised by a slightly shifty eye and extreme reluctance to make any decisions, a conviction that he is always ill, a refusal to eat food at the accepted times and an alternating belief that the film he is working on is either "lousy" or "terrific." Advanced cases frequently have clearly defined physical mannerisms. They twitch, pick their noses, carry small sticks about, etc. Most good directors belong to this class. I hope to qualify for it myself as the years pass, if my digestion deteriorates and my imaginative powers ripen.

2. The "Dictator" Director, who suffers from an inflated "Power Complex." This type finds everything dead easy. He snaps off decisions like a Bren gun, while his iron nerves and business sense enable him to weather crises which prostrates the "Hunted" type. He has points to recommend him, but in the end his "Power Complex" begins to infringe seriously on his natural sanity. He takes to directing in fancy dress and expects life to be a "montage" of technical and histrionic impossibilities over which his own face is continuously double-exposed wearing an expression of non-stop domination.

The assistant directors' manias are less harmful, although equally clearly defined. They follow roughly the same classifications as the directors':

1. The "Hunted" Assistant always looks as if he handled a large share of the rearmament programme as well as tomorrow's call. He seeks relief principally by calling everybody "old boy" in a subconscious attempt to propitiate the unseen forces which he is convinced are working to encompass his downfall. He also drinks a good deal of whisky—if possible on an empty stomach.

2. The "Dictator" Assistant is generally offensive to everybody except the Director. His "Power Complex" invariably makes him refer to the films on which he works as if they were his own private property. "*My* last film," "*My* crew," "*My* floor," etc. An extra can always get another day's work out of him by implying that he, not the director, really directs the films he works on.

(Continued at foot of next page)

THE CENTENARY OF PHOTOGRAPHY

In the beautifully panelled hall of the Royal Society of Arts in the Adelphi, before a very distinguished evening-dressed audience, was celebrated the Centenary of Photography. It was a joint meeting of the Royal Society of Arts and the Royal Photographic Society, presided over by Olaf F. Bloch, Hon. LL.D., F.I.C., Hon. F.R.P.S.

It was the Royal Society of Arts that first sponsored investigation into photography and the formation of a photographic society. On the 27th May, 1839, S. T. Cooper of the Polytechnic Institution demonstrated his method of preparing paper for "photographic drawings." This followed the experiments by Fox Talbot and Scheele that chloride of silver becomes discoloured by exposure to light and was capable of successful application in the arts.

Fox Talbot

"PHOTOGRAPHIC DRAWINGS"

Briefly, Mr. Cooper's process was that he used a fine quality demy, 16 lbs. to the ream. The sheets, cut lengthways into two parts, were steeped for 30 hours in a solution of 1 lb. of common table salt to 25 pints of water. They were then dried; the paper was sensitised in a solution obtained by dissolving 8,000 grs. of fused nitrate of silver in 10 pints of distilled water and then filtering the solution (this bath had a specific gravity of 1.066). The coating was done in a trough, the dry paper being held by the hand at each end while an assistant placed upon it two glass rods. Paper and rods were immersed in the silver bath and drawn backwards and forwards, care being taken not to wet the fingers; this was effected by leaving about an inch and a half of paper at each end for holding, which was afterwards cut off. The glass rods rolling over the paper removed air bubbles, assuring that the solution spread uniformly over the paper. The sheets were then hung to dry in a dark room at a temperature of 75°. A hydrometer was floated in the liquid during coating, and compensation for loss of silver was sustained by the addition of a saturated solution. The method of fixing and development after exposure was to steep the paper for three minutes in water to dissolve the undecomposed nitrate of silver, and then to place it in a solution of Hyposulphate of Soda, sp. gr. 1.057 (this process of fixing was discovered by Sir John Herschel in 1810). The print was then washed in clean water. (It is interesting to know that this paper is still used by process engravers for certain work. The picture printed is outlined in indian ink by an artist and the photo is bleached out. The resulting drawing is used to make line blocks for catalogue

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PEN TENNYSON

(Continued from previous page)

As an assistant, I undoubtedly belong to Class 2. If I remain a director, I hope to qualify for Class 1. The reason for this transition interests me as do the basic causes of the manias themselves. After completing a picture as a director, I feel better qualified to try to analyse them. The assistant's hallucinations are so obviously caused by being responsible to and working for an entirely irrational being that we can dismiss them as secondary. Thus restricting our analysis to directors alone.

Many lunatics are credited with the belief that the rest of the world is insane and that they alone are supremely sensible. In the entertainment business we see about as much of the outside world as the small boy sees of sex who peers at it through the slot machines on Brighton Pier. I think in some mysterious way that a film director's complete isolation from the world proper and his inevitable, if partial, isolation from even his own world of moviedom, are the principal causes for the collapse of his reason. An assistant is kept in an agreeable state of aggression and alertness by the resistance and offensiveness which he encounters on all sides. There is a dangerous tendency to treat the director with politeness. On the floor, unless he is careful, he finds himself being lulled into a sense of false security and remoteness by the aura of civility in which he moves. So there he is, severed by profession from the outside world, slightly estranged by his job from his own world of technical back-chat and shop, and with his head crammed and buzzing with the lines, lives and thoughts of the bunch of characters about whom he is trying to make a film.

Then, when he has completed his picture, if it is any good, well-meaning people astonish him by congratulating him on points and effects which he himself had never realised the film contained. While if it is bad, he wants to crawl away and shoot himself. That is, unless he is already in a state of palpitating agitation about the next one, in which case the last epic is about as fascinating as a dirty shirt. Or even less so, for a dirty shirt is merely uninteresting, whereas by the time a director has finished a film it seems to me inevitable that he should regard the whole thing with a dislike that amounts almost to nausea.

But the one thing that most people overlook about lunatics is also true about directors. For the most part they find life infinitely more diverting and exciting than do the sane. It is for that reason that having been fortunate enough to complete my first film my one hope is that I may be left at large long enough to become involved in many more.

illustration). S. T. Cooper received the Silver Medal of the Society for this communication.

DAGUERREOTYPE

The next recorded connection of the R.S.A. with photography was the papers by Claudet, the most eminent professional photographer of his day. In 1843 he wrote "The Progress and Present State of the Daguerreotype Art," a process in which a polished silver plate was sensitised by exposure to the fumes of iodine and bromine, and development of the image (which was a positive picture) was affected by exposure of the plate to the fumes of heated mercury; and in 1849 "The Photographometer" in which the author described his Photographometer as an instrument for measuring the intensity of the "photographic ray" at any moment of time so as to enable the operator to know how long it will be necessary to submit the photographic plate to the action of the camera, in order to ensure the perfect image of a subject. Claudet's meter is what we call an Exposure-Meter. Readers will be surprised to learn of an Exposure-Meter being used 90 years ago.

FOX TALBOT

Miss M. T. Talbot, a granddaughter of Fox Talbot, was at the Centenary meeting, and told us much about her grandfather and his experiments and researches at Lacock Abbey, which founded the industry in which we technicians serve. Born in 1800 at Melbury, Dorset, the son of William Davenport Talbot, an officer of Dragoons, at eight years he went to a preparatory school at Rottingdean. At 11 he went to Harrow in Dr. Burton's House. When he was 12 he began to experiment in chemistry, a subject not then taught at school. Studies were a pleasure to him, and of chemistry he writes to his mother: "You can have no idea with what vigour I pursue my favourite science of chemistry. I get my things at a Chemist's here. At present my laboratory consists of very few articles, viz., an iron spoon to melt metals, a tin pot to boil liquids in, a tobacco pipe, a tin spoon to mix things, an egg cup, a pestle and mortar (lent me), a large green bottle, a seltzer-water bottle, nitrous acid, sulphuric acid, muriatic acid, potash and nitre, flowers of sulphur, a little phosphorus."

Unfortunately an explosion resulted. Mother and schoolmaster concurred in forbidding experiments in school. Highly indignant, the boy managed to carry out some practical work in the shop of a Harrow blacksmith. At the age of 13½ he reached the sixth form and at 15 left Harrow, being brilliantly successful in all his studies.

Early Calotype by Fox Talbot

He entered Trinity College, Cambridge, at 17. Graduated in 1812 as Twelfth Wrangler, he also obtained the second of two Chancellor's Medals, then the highest Classical honour. Took his degree in 1821, and then went abroad. A member of the Whig Party, was returned for the Chippenham Division of Wiltshire, and helped to pass the Reform Bill of 1832. Married the same year, had one son and three daughters. Experimented in Chemistry, Mathematics and Physics and wrote several books. Elected a Fellow of the Royal Society in 1831, not because of his photographic discoveries (not then completed), nor his work in chemistry, but for his mathematical attainments.

In 1850 he perfected the Calotype process for which he held a patent. The sensitive material used in

Daguerreotype. Panorama of City, 1844.

the Calotype process was paper sensitised with solutions of nitrate of silver, iodide of potassium and gallo-nitrate of silver. After exposure it was developed by further application of gallo-nitrate of silver, which resulted in a negative image from which many positives could be printed. The Calotype method was only permitted to be used then under licence, for which a substantial fee had to be paid. In April, 1852, after preliminary meetings of respectable amateur photographers led by Roger Fenton, application was opened with Fox Talbot for permission to practice his Calotype process free for their own amusement. In an interview with Robert Hunt, Fox Talbot stated "If a Photographic Society was formed upon a respectable basis, he would give a licence to every member of that Society to practice the Art with certain conditions." At the meeting of the Council of Arts on June 9th, 1852, the committee negotiating the formation of the Photographic Society said they believed that if Mr. Fox Talbot were called upon by a letter signed numerously and influentially he would agree to relinquish his patent rights and throw them open to the public. The signatures were obtained, although according to the report, Fox Talbot's final decision was chiefly due to the efforts of Sir Charles Eastlake and Lord Rosse, whose respectability was in no doubt and who pointed out that the enforcement of his patent rights stood in the way of progress in this country; to which appeal Fox Talbot, on the 30th July, made his invention a free gift to the public, with the exception of portraits made for sale. In 1854, with remarkable generosity, he abandoned all his rights, thus opening the way to photography and the cinema as we know it today.

FIRST EXHIBITION

The first exhibition of photographs was held in the same year at the R.S.A. and 800 prints were exhibited. Roger Fenton, the first war photographer, was first secretary of the Photographic Society. His pictures of the Crimea War have been recently published in *Picture Post* and compare remarkably with modern press photography. These pictures were taken on wet plates and the dark room was in a large van.

Scott Archer developed the wet collodion process used by Roger Fenton. Known as the wet plate process because the plate is exposed in the camera while wet, it is still used today for the making of screen negatives for process engraving. A glass plate is coated with a film of iodised collodion and sensitised by immersion in a solution of nitrate of silver. After exposure it is developed in a solution of pyrogallic and acetic acids.

At the end of the Centenary Meeting, A. J. Bull, Ph.D., M.Sc., F.R.P.S., chief of the L.C.C. Photographic School at Bolt Court, Fleet Street, demonstrated early processes. The room was darkened and by an orange safe light he showed how Fox Talbot made the first print of lace in contact with sensitised paper by exposing it to light. He also showed the making of a wet plate. The skill of the demonstrator was a treat for the modern photographer.

The formation of what is now the Royal Photographic Society was, according to Dr. Diamond, directly due to the inspiration of the Prince Consort, who was, like King George VI, an ardent photographer.

During the discussion many interesting facts came to light, amongst which were that Neville Maskelyne was a founder member of the R.P.S.; that the pin-hole camera of Wedgewood and Lord Kelvin gave them images they could not fix; and the first dry plate appeared in 1870. A statement was made that the latest contribution to photography is a colour printing-out process which is nearing perfection in the labs of Ilfords, who claim to be the oldest dry-plate manufacturers in the world. The first "roll" film was sold to the public in 1888, thus laying the foundation for Friese-Greene's invention of cinematography. Yet at this Centenary meeting only two references to the cinema were made, one by Olaf Bloch who referred to the film as "that which amused, instructed and often bored picture house audiences," and the other by Dudley Johnston, Hon. F.R.P.S., who recalled with pleasure that a few years ago he had taken the chair at the Royal Society of Arts when Mr. Claude Friese-Greene, son of the inventor and now lighting cameraman at Elstree, lectured on his two-colour method of photography.

R.K.L.G.

FOREIGN PERMITS

Ministry of Labour Report, 1938. H.M. Stationery Office. 2/-.

Of special interest to film technicians are the annual figures covering the granting of permits to foreign film technicians. The slump is responsible for a large reduction in the number of permits granted, but the puzzle to us is why there was a need to grant any permits at all during a year when key British technicians in all departments were available. There is a regrettable decrease in the percentage of permits refused. Perhaps the figures explain why Mr. Ernest Brown, the Minister of Labour, was unwilling to receive an A.C.T. deputation. The policy of his department during 1938 would indeed be very difficult to justify.

Permits were as usual dealt with under two groups: (1) Permits for foreigners who are abroad at the time of the application. These are dealt with by the Ministry of Labour. (2) Permits for foreigners already in this country, which are dealt with by the Home Office.

The actual figures are as follows. Figures in previous years are given for comparison.

	1936		*1937*		*1938*	
	Permits		Permits		Permits	
	Gran'd	Ref'd	Gran'd	Ref'd	Gran'd	Ref'd
Group (1) ...	**118**	*20*	**53**	*9*	**27**	*3*
Group (2) ...	**39**	*24*	**19**	*17*	**6**	*2*
Totals ...	**157**	*44*	**72**	*26*	**33**	*5*

	1936	*1937*	*1938*
Percentage Refused ...	**22**%	**26**%	**13**%

In considering the above figures it must also, of course, be remembered that several of the foreigners for whom permits were granted in previous years are still working in the country but are excluded from last year's figures as they are now either naturalised British subjects or resident aliens.

The report also deals with a variety of other subjects, including a general review of employment and unemployment, industrial relations, labour statistics, and a host of many other matters which come regularly within the purview of the Ministry of Labour.

G.H.E.

"DO tell me, Mr. X., why must they always have that endless list of silly names at the beginning of a picture?"

"Well, you see, Miss Y., it's only fair that the people who help make a picture should get some credit for it."

"But why like that, Mr. X.? If somebody gives me a wrist watch, the name of the man who made the minute hand isn't engraved all over it!"

"Well, you see, Miss Y . . . ."

And that's where you stop short. Because, after all, how can technical screen credits be justified from a strictly entertainment point of view? Nobody, unfortunately, cares two hoots who wrote the screen play or who designed the sets: and it's no use our kidding ourselves that they do.

Some people maintain that, if a fraction of the money devoted to building star values were spent on boosting directors and writers, both these latter would exercise real both-office pulling power, as they do in France. Personally, I don't believe it. You have to be a Capra, a Hitchcock, an Edgar Wallace, before the public will show any sign of interest in your existence.

Nevertheless, screen credits exist, and doubtless they always will. And while they exist they'll always be prized far above rubies by the people who receive them; because they're a certificate of work achieved and the best possible passport to future employment.

If this is true of, say, the director and the cameraman, it's doubly true of the writers. While nobody's likely to contest the direction of a picture, everybody from the clapper boy upwards and downwards is liable to claim credit for some bright idea, some marvellous gag or some scintillating line of dialogue.

Anyway, Hollywood realised years ago that the whole question of writers' screen credits had got to be put on a rational basis. So, after months of manoeuvring and campaigning, they finally succeeded in formulating a code which proved acceptable to writers and producers alike.

At that time, the situation in this country regarding writers' credits was in a state of almost perfect confusion. Words like "scenario" and "continuity" and "dialogue treatment" were flung on the screen indiscriminately, without anybody knowing who meant what by which. I recollect a legal action gallantly fought by Victor Saville to try and clear the matter up. He asked me to appear in the witness box for the purpose of supplying the judge with accurate definitions of all these terms. I backed out, on the grounds that I couldn't make sense out of something that hadn't any!

Later on, when Tim Whelan came over from Hollywood to direct for Gaumont-British, he took up the cause of the screen writers with enthusiasm, and guided us in the preparation of a "Screen Writers' Code." This code was sympathetically received by Michael Balcon, the Director of Productions, who sanctioned its immediate application.

Apart from various clauses relating to writers' contracts, this Code laid down that the allocation of screen credits should be determined by the writers concerned, an executive of the company acting as arbitrator. Hostile critics sneered that when two or three writers are gathered together, the only thing on earth they'll agree about is the scandalous incompetence of directors. In actual fact we found the precise contrary to be the case. In every instance where we applied this method, a satisfactory decision was reached without any difficulty whatever. And Michael Balcon remarked that it was a great relief not to have writers lying in wait for him any longer with strings of grievances!

Ever since its formation, the Screen Writers' Association has continued to urge the adoption of a code based on these Hollywood principles; its main objects being, first, to limit the number of writers' screen credits to a maximum of three or four; second, to standardise the use of the term "screen play," as comprising the adaptation, the dialogue and the shooting script.

It should be mentioned that this limitation of credits does not include the authors of the "source material," whether this be a published literary work or an original screen story. (In parenthesis, the Association holds emphatic views about preserving the integrity of originals. But that's another story . . . or stories!)

FROZEN CREDITS

By ANGUS MACPHAIL

the well-known screenwriter

While this limitation is unanimously agreed to be desirable, at the same time it bears hardly on writers who have made a genuine—though minor—contribution to the picture. So often, on an important but difficult subject, extra writers are called in to assist, but are precluded from receiving credit: an injustice which our Association aims to rectify.

On every British film we plan to compile a list of "contributory credits" for writers: this list, through the courtesy of the editor, to be printed regularly in "The Cine-Technician." We have already devised a method by which these contributory credits can be determined, and full details are available to anybody who is interested.

In addition to its publication in these columns, the list will be regularly circulated to all producing companies. It will, we believe, prove of substantial value to them in their choice of screen writers. We are currently in touch with the producers in regard to the implementing of this scheme, and have reason to anticipate that it will meet with the approval and co-operation of most—if not all—of them.

In conclusion, the obvious query presents itself: why should this scheme be confined to writers? Why shouldn't film editors, art directors and others find it equally applicable and valuable to themselves?

MAKE UP CHARTS

MAX FACTOR has a laboratory in Hollywood that is devoted to experiments in motion picture make-up. Their latest contribution to the art is called Pan-Cake, which is a highly effective cosmetic foundation in a dry cake form. For straight motion picture make-up this product has largely replaced the grease paint and face powder combination, not only because it simplifies the application of such make up, but because it provides a smoothness of skin surface which cannot be commanded by other means; it gives the skin a photographic glow.

Pan-Cake is applied with a sponge moistened and rubbed over the preparation and then spread over the face. Temperature of the water in no way enters into the efficient application of this make-up compound, which is made up into a great number of shades. When this make-up has been applied to the skin it should be patted with a soft towel or tissue until it is completely dry, then the surface should be brushed smooth with a powder brush. This will give the face a complexion against which foundation the features of the face are effectively defined.

A face powder of the same shade should be used. The make-up can be retouched after application, and can also be patched if need be, without putting on an entirely new make-up. It is heat-proof and waterproof.

We give a number of charts and tables prepared by Adelina Perrie, director of make up of Max Factors which should be a great help in conferences between camera and make-up departments. Also suggested make-up instructions for photography with Technicolor, Dufay, Kodachrome, and black and white panchromatic.

(A). Technicolor

WOMEN

For Normal Complexions ..... No. 21M Pan-Cake
For Drab and Yellow Complexions ... No. 21L Pan-Cake
For Brunettes—
Very Fair Complexions ..... No. 21R Pan-Cake
For Blondes—
Very Fair Complexions ..... No. 21R Pan-Cake
For Highlights ..... No. 21P Pan-Cake
For Shadowing ..... No. 24H Pan-Cake
For Powdering ..... No. 1A Neutral
For Lips ..... Carmine lipstick
For Cheeks ..... Carmine rouge
For Lining .... No. 6

MEN

For Normal Complexions ..... No. 24H Pan-Cake
For very Dark Complexions ..... No. 24K Pan-Cake
For Fair Complexions ..... No. 24G Pan-Cake
For Shadowing ..... No. 25HY Pan-Cake
For Highlights ..... No. 21M Pan-Cake
For Extreme Highlights ..... No. 21P Pan-Cake
For Powdering ..... No. 3A Neutral

(B). Dufaycolor

WOMEN

For Normal Complexions ..... No. 21M Pan-Cake
For Drab and Yellow Complexions ... No. 21L Pan-Cake
For Brunettes—
Very Fair Complexions ..... No. 21R Pan-Cake
Sallow Complexion ..... No. 24L Pan-Cake
Dark Complexion ..... No. 24G Pan-Cake
For Blondes—
Very Fair Complexions ..... No. 21R Pan-Cake
For Highlights ..... No. 21P Pan-Cake
For Shadowing ..... No. 24H Pan-Cake
For Powdering ..... No. 3A Powder
For Cheeks ..... Carmine rouge
For Eye Lining ..... No. 6 Lining
For Lips .... Carmine lipstick

MEN

For Normal Complexions ..... No. 24H Pan-Cake
For Very Dark Compexions ... No. 24K—24L or 25HY
For Fair Complexions ..... No. 24G Pan-Cake
For Shadowing ..... No. 25HY Pan-Cake
For Highlights ..... No. 21M Pan-Cake
For Extreme Highlights ..... No. 21P Pan-Cake
For Powdering ..... No. 3A Powder

(C). Kodachrome

WOMEN

For Normal Complexions ..... Cream 2 Pan-Cake
For Drab & Yellow Complexions ... Natural 2 Pan-Cake
For Brunettes—
Very Fair Complexions ..... Cream 1 Pan-Cake
For Blondes—
Very Fair Complexions ..... Natural 1 Pan-Cake
For Very Dark or Sunburnt Complexions
Tan 1 Pan-Cake
For Highlights ..... Cream 1 Pan-Cake
For Shadowing ..... Tan 1 or 2 Pan-Cake
For Powdering—Very Fair Complexions
Brunette Powder
For Powdering Normal Complexions ..... Olive Powder
For Powdering Dark or Sunburnt Complexions
Summertan Powder
For Eye-Shadow ..... No. 6 Eye Lining
For Lips—Very Fair Complexions ... Vermilion Lipstick
For All Other Complexions ..... Carmine Lipstick
For Cheeks (dry rouge)—
Very Fair Complexions ..... Blondeen Rouge
Sunburnt Complexions ..... Blondeen Rouge
For All Other Complexions ..... Carmine Rouge
For Eyelashes—All Types ... Black Eyelash Make-up

MEN

Tan No. 1 and Tan No. 2 Pan-Cake for all types

(D). Black and White Panchromatic

WOMEN

Blonde	*Brunette*
No. 26 Pan-Cake	No. 25 Pan-Cake
No. 26 Satin Smooth Powder	No. 25 Satin Smooth Powder
No. 21 or No. 6 Eye Liner	No. 21 or No. 6 Liner
Studio Special No. 390a Light or No. 2 Lip Rouge	Studio Special No. 390a Medium Lip Rouge

To obtain the new and very popular light natural effect on the lips, mix a little Technicolor Dark Lip Rouge with the other Lip Rouge.

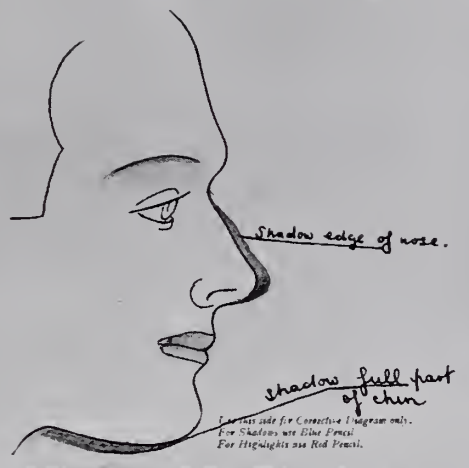
MEN

Blonde	*Brunette*
No. 28 Pan-Cake	No. 27 Pan-Cake
No. 28 Satin Smooth Powder	No. 27 Satin Smooth Powder
No. 22 or No. 6 Eye Liner	No. 22 Eye Liner
No. 22 Eye Liner rubbed on and rubbed off the lips	No. 22 Liner rubbed on and rubbed off the lips

MASTER FILE COPY — **MAKE-UP CHART**

Producer
Star—Mr.
Make-up Artist: Betty Evans.

DATE: 23-6-39.
Production ☐ Stock ☐
Screen ☐ Portrait ☐
Title: Large nose + double chin.
Character
Cameraman
Hairdresser



Foundation	28	Lip Rouge	22	Body Make-up	28	Wig	
Highlight		Mascara		Lifts		Puffs, Curls	
Shadow	2943	Dry Rouge		Hair Lace Front		Switches	
Eye Shadow	22	Lashes		Hair Lace Sides		Sideburns	
Powder	28	Under Rouge		Hair Lace Toupee		Beard, Mustache	
Makeup Pencil	Black or Brown	Teeth		Hair Lace Fall		Chin Beard	

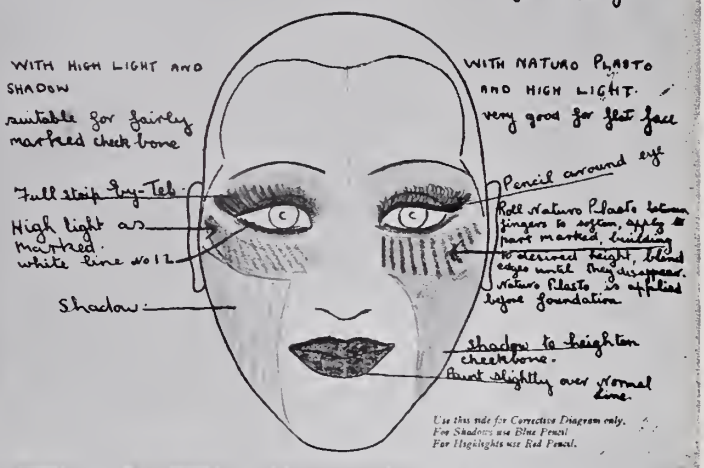
Remarks:

H. O. Lloyd & Co., Ltd., London N.1

MASTER FILE COPY — **MAKE-UP CHART**

Producer
Star—Miss
Make-up Artist: Betty Evans.

DATE: 23-6-39.
Production ☐ Stock ☐
Screen ☐ Portrait ☐
Title: How to build and
Character: create high cheek
Cameraman: bones.
Hairdresser: Normal Eyes, Lip + face



Foundation	25	Lip Rouge	390A med	Body Make-up	25	Wig	
Highlight	23	Mascara	Black	Lifts		Puffs, Curls	
Shadow	28	Dry Rouge		Hair Lace Front		Switches	
Eye Shadow	no 6	Lashes	Full Eye-Teb	Hair Lace Sides		Sideburns	
Powder	25	Under Rouge		Hair Lace Toupee		Beard, Mustache	
Makeup Pencil	Black or Brown	Teeth		Hair Lace Fall		Chin Beard	

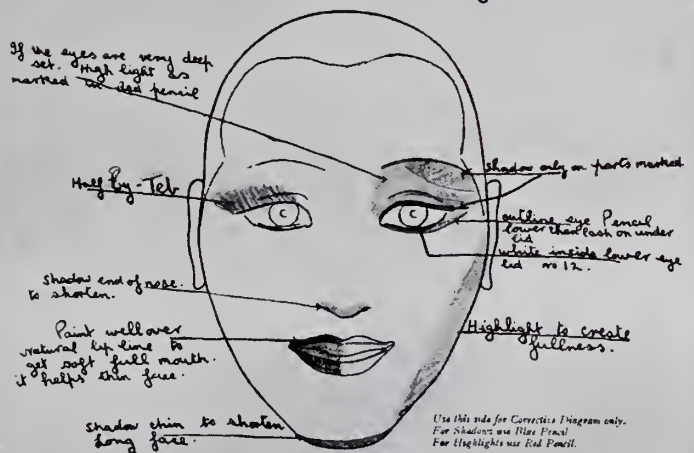
Remarks:

H. O. Lloyd & Co., Ltd. London N.1

MASTER FILE COPY — **MAKE-UP CHART**

Producer
Star—Miss
Make-up Artist: Betty Evans.

DATE
Production ☐ Stock ☐
Screen ☐ Portrait ☐
Title: TYPE Long + narrow face.
Character: Deepset eyes +
Cameraman: thin lips.
Hairdresser: Long nose.



Foundation	25	Lip Rouge	390A med	Body Make-up	25	Wig	
Highlight	23	Mascara	Black	Lifts		Puffs, Curls	
Shadow	28	Dry Rouge		Hair Lace Front		Switches	
Eye Shadow	21	Lashes	Half Eye-Teb	Hair Lace Sides		Sideburns	
Powder	21	Under Rouge		Hair Lace Toupee		Beard, Mustache	
Makeup Pencil	Black or Brown	Teeth		Hair Lace Fall		Chin Beard	

Remarks: The numbers used are for Brunette Type, for Blonde see Max Factors Film Chart.

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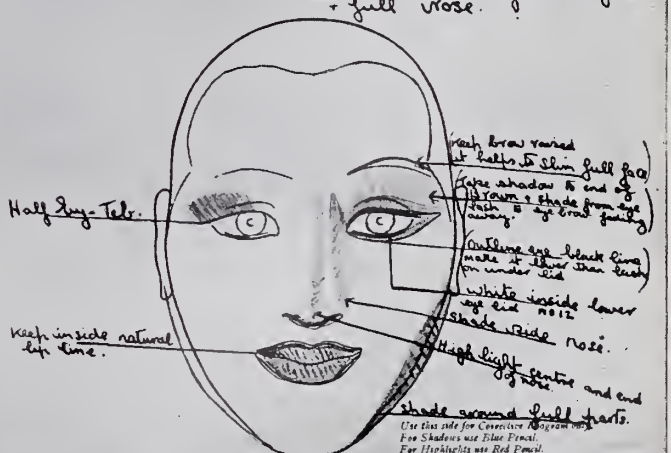
MASTER FILE COPY — **MAKE-UP CHART**

Producer
Star—Miss
Make-up Artist: Betty Evans.

DATE: 23-6-39.
Production ☐ Stock ☐
Screen ☐ Portrait ☐
Title:
Character: TYPE Round + full face
Cameraman: Thick lips.
Hairdresser: Small eyes. Very short + full nose.



Foundation	26	Lip Rouge	390A Lt.	Body Make-up	26	Wig	
Highlight	24	Mascara	Black	Lifts		Puffs, Curls	
Shadow	29	Dry Rouge	cinnamon for extra shading	Hair Lace Front		Switches	
Eye Shadow	no 6	Lashes	Half Eye-Teb.	Hair Lace Sides		Sideburns	
Powder	26	Under Rouge		Hair Lace Toupee		Beard, Mustache	
Makeup Pencil	Black or Brown	Teeth		Hair Lace Fall		Chin Beard	

Remarks: The numbers used are for Blonde type, for Brunette, see Max Factors Film Chart

H. O. Lloyd & Co., Ltd., London N.1

Make-up charts prepared by Adelina Perrie (see article opposite)

LIGHTING FOR THE NEW FAST STOCKS

(Reprinted from "American Cinematographer")

FAST FILM is unquestionably the technical topic of the day. The recent introduction of two sensationally faster production-type emulsions—Agfa's "Supreme" and Eastman's "Plux X"—offered cinematographers a revolutionarily improved material upon which to work. At the same time, the tremendously increased speed of the new films—fully twice that of previous films—gave rise to new problems in putting these emulsions to practical use.

A basically important aspect of the problem is lighting. The new emulsions require far less light to give a normal exposure. How, then, shall this reduction in exposure be accomplished? In theory, several methods present themselves: which is the most practical? In addition, what detail differences in lighting technique for the old and new films may exist to trap the unwary newcomer to plus-speed filming?

Since the new films are only just finding their way into general use, there are many who have not as yet had an opportunity to find for themselves the answers to all of these questions. From among those members of the A.S.C. who have actually used the new films on production the following opinions have been gathered in the hope that they will in some measure make things easier for others, here and elsewhere, who are just beginning their personal use of these newest cinematerials.

"CAFE SOCIETY" FIRST ON "PLUS X"

TEDDY TETZLAFF, A.S.C., is understood to hold the honor of being the first to expose the new Eastman product on actual production, using it in filming Paramount's "Café Society." He says, "Changing to Plus X I have simply reduced the average intensity of my lighting between 35 and 40 per cent." He continued:

This is a relatively simple matter. Actually, the electrical department did much of it for me by fitting smaller globes in my lamps, replacing the usual 2,000-watt globes in 18's and Juniors with 1,000-watt ones, and in the larger units replacing 5,000-watt globes with 2-kws.

Some of the smaller units—"broads," "rifles" and the like—cannot well be fitted with smaller globes as they are designed expressly for the 1,000-watt PS52 globe. (A 750-watt PS52 globe of the same dimensions is now available.—Ed.) These lamps are therefore either used with more diffusion or moved farther back.

The big thing to remember in changing films and making such a reduction in lighting is that in changing the intensity of the lighting, the balance must not be changed. Don't, for instance, make all the reduction in your highlight levels, or in your shadow level; if you do, the balance as a whole will be thrown out of key.

The results will naturally not be good photography, and you will find yourself blaming the film instead of yourself for what is really a mistake in lighting.

For the rest, don't become too overawed at the changed speed of the new film. Take it in your stride! If, as is sometimes necessary, you have to change films with too little opportunity for making advance tests, change your lighting gradually, making the obvious reductions at first, keeping your balance normal, and let further changes come later, as you get accustomed to the film and the new, low illumination levels.

WATCH HIGHLIGHTS

WILLIAM MELLOR, A.S.C.: I've had the experience of using both the Eastman and Agfa fast films and my experience agrees with Tetzlaff's. The most important thing to keep in mind when changing from conventional to fast film is the importance of a normal lighting balance. Keep that, and exploring the possibilities of the new film is a real pleasure.

Using ordinary film, we know there must be a definite relationship between the most intense highlight and the deepest shadow. With the new fast films this is more important than ever. There is apparently less latitude to protect you.

The film technical experts tell me this is due to a combination of a slightly sharper break in the shoulder of the H. & D. curve and the changed printing quality of the far finer grained negative.

In practical terms, it means—watch your highlights! With the older film highlights could often be lit quite a bit too "hot" without seriously affecting the quality of the print. With the new film, let them grow just a little bit too "hot" and they "burn up." In the old days there used to be a saying, "Expose for the shadows and the highlights will take care of themselves."

With the new film, we've got to turn that statement around. Today we must watch our highlights—and the shadows can pretty well take care of themselves.

Aside from this, lighting is still lighting, even if done in a lower key. In general, use smaller globes than usual. In the floor units, either use small units or, if you prefer, move standard units farther back and diffuse a bit more. Then forget about film speeds and reduced lighting levels, and go ahead and balance these elements in your accustomed way."

LIGHTING WITH "BABY JUNIORS"

ARTHUR EDESON, A.S.C.: I've just finished a picture on Plus X. The new film made me work harder than ever before—but the results on the screen are worth it.

The whole thing can be summed up in a nutshell by saying that the secret of using the new film is keeping your lighting balance normal even though you have less light to balance.

I've reduced my lighting level largely by using smaller globes and smaller lamps. So far it seems impractical to use fewer lamps, for lighting balance depends on the angles of light as well as intensity. And we've still got to keep our established number of lighting angles for any scene, whether or not a high degree of illumination comes from each source.

Personally, I've been lighting my sets largely with Baby Juniors and baby spots modernized with Fresnel lenses. The speed of the new film is such that it is uncanny what can be done with these tiny 500-watt units. And of course where larger units are necessary, Juniors and 18s fitted with 1,000-watt globes instead of the usual 2-kw ones do the trick.

If you can just remember to keep your lighting normally balanced, regardless of the reduction in overall intensity, you'll find that the increased speed of Plux X is only part of the story. The real thing is improved photo-

graphic quality in every respect. That, rather than mere speed, is what makes the new film such a tremendous improvement!

EASIER TO SEPARATE PLANES

L. WILLIAM O'CONNEL, A.S.C.: Lighting is easier with the new film than with the old. The film itself now does half the work of separating the different planes of your picture. People stand out more clearly from their backgrounds. Even separating the planes in close shots—the little matter of keeping a coat lapel from blending into the background of the garment—of giving and illusion of depth to faces and figures—is easier with the new film.

Far less backlighting is needed. The film itself does half the work backlighting used to do. As a result, we get more natural-looking pictures.

GAETANO GAUDIO, A.S.C.: It was one of the luckiest things that ever happened for me that Plus X came out when it did. I was just about to start "Juarez" —one of Warner Brothers' biggest films. It seemed just made for the new film—highly pictorial, and all through it called for dramatic, low-key lighting effects. I had just enough time to test the new film adequately and then step right into production with it.

I'm getting more beautiful results with this new film than I ever got before on any film. I don't think I ever received so many compliments on "rushes" before.

Lighting the new film, you've got to be sure of balance—but you can do what all of us have for years wanted to do: you can come down to almost natural lighting levels. And in low-key shadows where on the old film you saw just a heavy mass of black graininess, now you see a real shadow.

A good meter, like the General Electric, is a big help in keeping your lighting balanced. On most shots, I keep my key light at about 50 foot-candles. On the old film, I'd had to use 150 or 200!

NEW FLUORESCENT LIGHT

This means smaller, lower-powered units. With the old film, I'd use, say, a Junior for my keylight, and fill in with Baby Junior. Now I use Baby Juniors for my keylight! Those lamps and the new film were just made for each other! In fact, the smooth beams of all those Fresnel-lensed Solarspots are ideal for the new film, because they don't give you any "hot spots" or shadows to worry about.

The electrical department has rigged my sets with the usual 18's and Juniors, all equipped with half-sized globes for the new film. But even in the long shots I haven't had to use but about a third of the units available. In the closer shots I'll have perhaps one or two overhead spots in use, and do the rest of my lighting with Baby Juniors and heavily-silked broads on the stage floor. On low-roofed stages I've had to turn out the ceiling work lamps when I was shooting.

Using these smaller units it's easier to put the light just where you want it. Doing it with baby spotlights you can get your lamps into places where they'll do the most good—even in cramped quarters where you could never put a bigger lamp.

We've developed a marvellous new lamp for giving a soft front-lighting on close-ups of women. It is a fluorescent-tube lamp that looks something like the old Cooper-Hewitt tubes we used years ago, but much smaller. It employs a new fluorescent mercury vapor

(*Continued on next page*)

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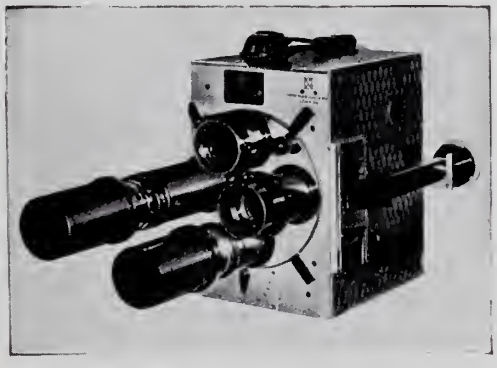

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LIGHTING FOR THE NEW FAST STOCKS

(Continued from previous page)

tube developed by General Electric, intended originally for house lighting. It gives a very soft blue-white light.

Used for a front light for faces, it is wonderful how it irons out wrinkles. The tube is big enough—about two feet long and two tubes are used in each lamp—so that the lighting seems to come from all directions—front, top, sides and underneath—giving a perfect, shadowless foundation light.

These tubes couldn't be used with the old film. They are rated at only 20 watts: they don't give enough light to pick up on ordinary emulsion! But they are perfect for the new fast films.

BUILD FROM THE SHADOWS

THEODOR SPARKUHL, A.S.C. (just commencing "Beau Geste"): Since I'm only beginning my first picture on the new film I don't feel I can say much about its use.

But it seems logical to me that it may change our method of lighting back to something like those we used some years ago. That is, first lay down a foundation of soft general lighting, and build up the halftones and highlights from this rather than the other way around.

VICTOR MILNER, A.S.C.: The new fast film is without doubt the most important photographic advancement in a long time. The cinematographer has to be far more alert using the new film—in making "Union Pacific" I've worked harder than ever before in my life, but the results on the screen, in terms of better, more expressive photography, are worth it.

But I think that if we limit our thinking about the new film to the relatively simple fact that we can use less light we are missing half the possibilities of the new emulsions.

FLEXIBLE TECHNIQUE

We've got a film which needs less light for an exposure. Using smaller globes to put less light on the set is only one way of putting this quality to work.

With the ordinary film we developed a technique of altering the key of our lighting to match the dramatic mood of the action. With the new film we can add to this idea, making the camera more expressive than ever.

For instance, the other day I had a scene in an old-time western saloon and dance hall. It was a big set, bright and full of picturesque action.

Using the new film, that scene could have been lit with half the light I actually used. But instead, I used what would be about a normal lighting for the old film—and compensated by stopping down my lenses. That way I gained in depth and crispness in a way that enhanced the mood of the shot.

At other times, I felt it best to lower my lighting level and keep my lens rather well open. This gave me softness and a naturalness better suited to that particular action.

And when the action calls for such things the possibilities of the new film for effect lightings seem endless.

For this reason I feel that any attempt to set down rigid rules for lighting the new film is wrong. It can close our eyes to opportunities the new film offers for making camerawork more expressive.

We've always prided ourselves on the thought that cinematography is as expressive a medium as a great orchestra. This new film widens that expressiveness. It makes it possible for us to run the scale between extremely soft, naturalesque low-level lightings (50 foot-candles or less), shot with full lens apertures, to the opposite extreme of higher-level illumination (perhaps as high as 200 foot-candles or more) exposed at greatly reduced apertures for a new and greater depth and crispness.

But we must keep ourselves mentally free to use these opportunities to the full, playing each scene visually for its best dramatic values.

50 FOOT-CANDLE -LEVEL

CHARLES ROSHER, A.S.C. (working on a large, stage-built exterior set for Warners' "Hell's Kitchen"): Just look around you, if you think this new film isn't fast. This is lit for a full daylight effect: but the highest light intensity is only 50 foot-candles by my G.E. meter. It comes from that H.I. Arc spotlight over there—nearly 100 feet away. With the old film it wouldn't pick up. With Plus X it will do so strongly. The rest of the lighting graduates downward from this 50 foot-candle level.

Working at these low levels, a meter is a tremendous help in checking the fine distinctions in illumination between highlights, halftones and shadows.

I've noticed one little detail which should be watched in using Plus X. Greater care must be used on "goboing off" lamps. If they are not shielded carefully, stray rays which in the past could be ignored will have a visible effect on the new, faster film.

For instance, you see that "sky pan" illuminating the backing at the side, 35 or 40 feet from the action? Lighting escaping around its reflector is definitely helping illuminate the players down here. On small sets, the lighting units used must be much more selective, and better shielded, than before.

The increased speed of the film must be watched if your are working with people with ruddy or florid complexions. It accentuates red tones. Grant Mitchell, who is playing in this film, has worked successfully without make-up in many films I've photographed. But in this one, due to the way the new film accentuates his natural coloring, he is wearing make-up for the first time.

All of these things are of course details. But speaking more broadly, this new film, if one is alert and utilises not only the film but the improvements available in modern meters, lighting equipment and so forth, opens up the way to a lasting improvement in cinematography.

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REST AND BE THANKFUL

(Continued from next page)

woman sat on a chair which wasn't there. A short about St. James' Park produced some unexpected reactions—for instance, shots of people walking about were sure-fire laugh-getters, and a man in a bowler hat sitting on a park bench, quietly eating a sandwich, brought the ceiling down.

We left the island after a stay of about six weeks. Looking back to our time there, I realise now that it was, on the whole, a good time, though we were often disheartened and irritated by weather and other local obstructions.

REST AND BE THANKFUL

by

A. E. JEAKINS

"HOW do three people with a car and camera equipment get to Islay?" we asked in Glasgow when we arrived.

"You can go all the way by cargo boat from Glasgow. It takes about 24 hours if you're lucky, and the route is via the Mull of Kintyre, which at this time of the year can produce some of the roughest seas in the world. Alternatively, you can drive the car 150 miles to West Loch Tarbet over the notorious 'Rest and Be Thankful,' which is quite liable to be icebound or snowed up. From Loch Tarbet it's a four-hour run on the steamer."

We were in Glasgow, a unit of three (Ruby Grierson, director, Phil Leacock, assistant, and myself, the cameraman), working on a documentary film for which some sequences featuring an island community were needed. Hence the trip to Islay.

We thought about the Mull of Kintyre, and decided to risk getting over "Rest and Be Thankful." Our car was well past her prime, but she had brought us from London without breaking down—much.

We left Glasgow at 6 a.m. on New Year's Eve. It had snowed during the night and as we turned West at the head of Loch Lomond, we might have noticed how grand the snow-covered mountains looked in the dawn light, if we had not been thinking of "Rest and Be Thankful" a little way ahead. However, we got over the hill without much trouble.

At Loch Tarbet we found the paddle steamer "Pioneer," which brought us to the rugged and inhospitable-looking coast of Islay, and we came alongside the pier at Port Ellen in the early dusk of a winter evening.

Islay, southernmost of the Hebrides, lies 18 miles west of Kintyre, measures about 25 miles by 15, supports a population of about 5,000 and nine whisky distilleries, and has, I should guess, one of the longest straight stretches of road in Britain, eight miles of it without a kink. Map-makers draw it in with a ruler. The inhabitants speak English for the benefit of "incomers" and Gaelic amongst themselves.

The great week-day event is the arrival of the "Pioneer," bringing mails and the morning papers in time to be read over supper.

The script called for a certain amount of night and interior shooting in crofts, pubs, dancehalls and lighthouses. A note on our lighting equipment might be amusing if not instructive. It consisted of a set of six photo-flood lamps, fed from car batteries wired in series. The batteries weighed about 5 cwt., and added to the burden of our already overloaded car. Flares were used on some night exteriors whose weather conditions were too tough for the lamps. The new ultra-speed stocks made it possible to get shots under conditions which would have been hopeless a little over a year ago. The compactness of the photofloods were a great advantage when working inside cottages and in the cramped space of a lighthouse.

The lighthouse at Rhuvaal, where we did some shooting, could be approached only from the sea. Camera, lights and batteries had to be loaded into a small motorboat which took us up the Sound separating Islay from the Island of Jura, through which the tides often raced at speeds of six to seven knots. On one of our visits we arrived to find the lightkeeper hoisting the cone—a gale warning had just come through on the phone. He remarked consolingly that these warnings didn't always come true. Thinking of our run home, which took something like an hour, we hoped he was right. As we worked through the day we listened to the wind rising steadily. However, when we loaded the boat for the return journey at dusk, we were assured it wasn't blowing a gale yet, as the tower of the lighthouse hadn't started to shake! Anyway, the boatman knew every nook and cranny of the coast, and probably every eddy of the current. Sandy, the eldest of the crew, had been doing the same trip with supplies for the lighthouse for more than thirty years. We took rather longer than usual getting back, as the gale—I mean wind—and tide were against us, but we arrived at Port Ascaig safe and happy though a little damp.

The lifeboat crew took their boat out one night for us to get some shots. It wasn't as stormy as the director would have wished, but we were getting near the end of our stay on the island and couldn't afford to wait much longer. Personally, as I watched the wind driving the rain up the lens hood and plastering it neatly on the front glass, and my unhappy colleagues struggling with sodden matches to get the flares alight, I felt rather envious of people who do this sort of thing in tanks.

There are no cinemas on Islay. This gave the director the idea of borrowing a 16 mm. projector and, with the co-operation of the schoolmaster, giving a free show to the children at the Port Ellen school. The majority of the audience, whose ages ranged from five to 14, had never seen a film of any sort in their lives. The programme included a Felix cartoon and an old Chaplin. The cartoon was an outstanding success; the Chaplin seemed a little too sophisticated, except when an enormous

(*Continued at foot of previous page*)

LUISE RAINER in London

(Interviewed by SIDNEY COLE)

LUISE RAINER tucked her feet under her on the chintz-covered sofa which blended with her flowered dressing-gown. The cross-examination began.

"Would I rather work in the theatre than in the movies? For me the movies are always more important. You reach a vaster audience, millions of people to whom you can give your interpretation of a part. But I feel that for me contact from time to time with the theatre is useful, even essential, because the feeling of creating a part afresh every night and directly to a living audience gives new vitality to the artist. Is it wrong for an actor to play in the studios during the day and in the theatre at night? I would not like to say it is wrong. For me it would be impossible—the strain would be too much. But for some actors it may be possible. The main thing for the artist is to feel again the inspiration of direct creation to an audience."

"Why did you choose your present play, "*Behold the Bride*" for London, especially as it has already been filmed in Hollywood as "*Say it in French*"?

"About it's having been made into film, I did not know until recently." (Was there a note of vexation in that reply?). "As to why I chose a light farce—I think it is better, for me at any rate, to play in something which is light and which does not pretend to deal with anything serious, but in which I can make people laugh and feel happy, than to play in something very weighty and serious which deals with very tragic human things and yet gives all the wrong answers. I had got tired of the parts I had been playing recently in Hollywood. They lacked contact with real things, with humanity. I would like to play in parts that have humanity about them, yes; but believe me, since I have been in England I have read hundreds of plays, really hundreds"—a graceful gesture of a long-fingered hand, recalling in miniature the charm of the screen Luise Rainer—"and among them not five"—the hand emphasised the point with startling vehemence on her knee—"yes, not five were right in that way! And in these days when people are so worried, with all the threats of war and all their other troubles, it is better for them to laugh at something unpretentious than to add to their troubles."

"But do you think that artists should concern themselves with matters in the world outside?"

"But of course! I cannot say for others, and after all there are good actors and actresses who do not need such outside contact—but for me this interest is necessary, in what is happening outside, people's worries and troubles and hopes and desires."

"Would you say then that we need films, for example, that express the idea of democracy, such as *'Confessions of a Nazi Spy.'*?"

"I would not say it for myself in that way. Words like democracy are for the politicians. For myself I prefer to say humanity. Anything that is human, that has an understanding of people's lives."

(But, however you phrase it, it's still democracy. Luise Rainer's work as a member of the Motion Picture Committee of the Hollywood Anti-Nazi League enters for her a plea of guilty to the charge of being a democrat. And I'm sure she's not ashamed of the accusation).

Paul Muni and Luise Rainer in "The Good Earth"

"Would it be a good guess, from that, that your favourite part was O-lan, the wife in *'The Good Earth'*?"

"Yes."

"And would it be true to say also that you were able to create that part so well because of your feeling for the Chinese people?"

"Not because of the sufferings of the Chinese people in war, because after all *'The Good Earth'* is three years ago and there was at that time no war, so that it would not be true to say that."

An over-scrupulous reply, I thought. Underlying the playing of that part in "*The Good Earth*" was cer-

tainly a general sympathy with people oppressed and suffering. Had she not told me at the beginning of the interview that she had just been working on a lunch-time speech she was to make the following day on behalf of China at the Overseas League? But she is anxious not to tie such sympathy down to any narrow formula that suggests a political hackneyism and might be disinterpreted. As she said, "I am here in England as a guest. If you are invited to a house as a guest you take what is given and try to repay the kindness shown and behave as a guest."

A tap on the door. "Eight o'clock, Miss Rainer."

"Just one more question, please. Do you think the new organisation that has recently started in America, Associated Film Audiences, is useful?"

"Yes, I certainly do. I was in at the beginning of it and I do think that if it develops properly it will be a good thing. To have an audience growing up that expresses for the first time what movies it wants, will be good for the artist."

A handshake. A smile that, like the graceful gestures of the hands, recalls the appeal of her screen performances and whose charm, from being isolated and on a smaller scale, seems even greater. I find my way out of the rabbit-warren which is "backstage" in the theatre. The interview is over.

* * *

We are glad to hear that the National News Theatre Association of Great Britain and Northern Ireland has decided to take up on every occasion cases of censorship and of international news bias. The following resolution was passed at the last general meeting of that Association:—

News Theatres in Association will resist by every legitimate means within their power the Censorship of the News Reel, or other screen news, which some might desire to impose—either officially or unofficially, from outside or inside the industry.

If public fears with regard to events past are without foundation it is excellent, but it is desired to be placed on record that, should the occasion arise, the Members of this Association will be more than prepared to join forces with the Public, the Industry, the Press and others concerned to preserve the complete liberty of the "Screen Press."

* * *

THE PERFECT MAN

Mr. W. J. Brown, General Secretary, told the Civil Service Clerical Association's recent conference that the ideal trade union official must have the:

Urbanity of a parson.
Skill of a lawyer.
Humour of a George Robey.
Patience of an ox.
Hide of a rhinoceros.
Constitution of a bull.
Capacity for being regarded as a damned scoundrel from the outset of his career to the end.

And he must keep a smiling face through it all.

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"JAMAICA INN"

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CINEMA LOG *By* Kenneth Gordon

News of New Inventions

Met cameraman Hal Young full of pep in Wardour Street. Tells me he is engaged in some very successful experiments in true stereoscopic cinema films. D. E. Forrester leaves for America to investigate a new automatic developing plant, the feature of which is the total abolition of sproekets. The film can be fed into the machine without a spacing lead. I hope to get the full details for a later *Cinema Log*.

Gus Drisse Back From Stockholm

Gus just returned from Stockholm, where he has been "backgrounding and montaging" for his old chief, Harry Stradling, now in Hollywood for Metro-Goldwyn-Mayer.

Harry phoned him at his home from Hollywood ordering him on location, where he proceeded by plane with a Bell-Mitchell camera. Camera gear cost him £29 each way for freightage. Full instruetions for the job were eabled him from America. Some of the cables were 3½ pages eontaining 519 words. He met several snags. It took five days, for example, to procure permits, as these eould only be issued after application had been made in writing.

During the wait for permits Gus marked on a large-scale map of Stockholm the position and time the sun was most suitable for filming each shot in the script. This must have saved eonsiderable time as the filming in the extreme north of Europe is very tricky. His script demanded many night shots, but the sun rises at 1.30 a.m. at this time of year and each day brought him nearer the period when they get the midnight sun and there is no darkness at all! Drisse was in Stoekholm five weeks and three days, and shot 11,000 feet of negative, which was shipped to Hollywood for development.

Gus Drisse was camera operator to Harry Stradling on "*Jamaica Inn*," when a strong friendship developed between those two A.C.T. members.

Gracie Fields

Only now can we understand how great was Gracie Field's tribute to the cine-teehnicians when only a few days from her operation and ill as she must have been she gave us half-an-hour of her best performanee at our Ball and Cabaret. She would not let down those who had worked with her on "Shipyard Sally" and other films. Tremendously popular, all teehnieians love her and pray for her speedy recovery to good health. George Elvin sent a letter on behalf of all the teehnicians engaged in British production, wishing her a speedy and full reeovery. He told her she "is an invaluable asset to British production and while artistes such as you continue to make British films we are still assured of at least some work, notwithstanding the efforts of Ameriean interests, the Board of Trade and the Chancellor of the Exehequer to cripple us by devious ways." She replied through her Manager, Bert Aza: "Gracie has asked me to thank you for your nice letter of the 19th. You will be pleased to hear that Gracie is getting on quite nieely and we are hoping that the progress she is making will be maintained."

And so hope all of us.

The Film Tax And The News Reels

I have been making a rough calculation on the effect of the tax on newsreel production as it affected the laboratories engaged in the processing of the five British reels. During the weeks before the repeal of the tax newsreels used about 500,000 less feet of positive film stock per week. The tax on a newsreel print, taking 800 ft. as the average length per issue, was, under the original tax, £1 16s. 0d. On the basis of two issues per week, the new tax advanced the copy cost per issue to £3 12s. 0d. per week, and as the average booking per issue is only six days it can be seen what an impossible burden the tax was. Then, of eourse, there was the additional duty on imported material from abroad of 6d. per foot, and also the ¼d. tax on negative stock both for sound and picture.

One thing the tax on negative from foreign sources may do is to remove the persistent pictures of Hitler and Mussolini that have continually flaunted themselves from the sereen to the annoyance of democratic British cinema audiences. Also the making of party propaganda as part of our newsreels may not be so encouraged by our newsreel barons.

The Association of Cine-Technicians watched very carefully that the tax was not used to lower the salaries and working conditions of newsreel workers, although the reduction of positive footage had a grave effect on the economic conditions of the laboratory workers engaged on this type of processing.

British Newsreel For World's Fair

The Newsreel Association is sending each week a British Newsreel for exhibition at the World's Fair, New York. This is a composite reel from all that is best in the five reels. It is called British News, and is issued by the Newsreel Association, the subjects being picked by a Committee. The results will, I am sure, enhanee the prestige of British newsreel technicians in the eyes of their American eolleagues.

Coal Filming in Infra Red

Ernest Palmer, just returned from Cumberland, has been filming exteriors on Infra Red stock for the Grand National film "THE STARS LOOK DOWN." He used an 81 Agfa filter at F2.3–F2.5 in sunshine, with Infra Red negative stock, on which he obtained some remarkable night effect shots. To obtain corresponding shots on Plux X he used a 23 A. filter.

Ernie is now an expert in the use of Infra Red stock. One thousand feet was used in the Pathe film made at Welwyn, "Dead Men Are Dangerous"—these were, I think, some of the most realistic night shots that I have yet seen.

Wilcox's American Clean-up

In spite of pressure from financial interests to release "Sixty Glorious Years" in America at once, Herbert Wilcox held up his film until July. Now he will benefit from the King and Queen's Ameriean tour, the success of which has lifted the British Royal Family sky high in American box-office value. Wilcox's vision will, I am told, net him $3,000,000 from Ameriean cinemas.

Advertising Film News

Obtained some interesting approximate figures in connection with the production and showing of advertising films:—

Beecham's Pills spend	£10,000
Ovaltine	£10,000
Player's Cigarettes	£20,000
Churchman	£5,000
Persil (Lever's)	£10,000
Goldflake	£10,000
Co-operative Wholesale Society ...	£12,000

Quite a nice sum, and added to these figures are those that are invested in subsidised documentary films such as the Gas films.

Rumour hath it that the bar on the showing of advertising films in the Associated British Cinemas will be lifted next year.

Charlie Heath, An Old Timer, Passes On

A dear friend, fellow technician and old-timer, has passed away. Charlie Heath has gone to rest. Known to every newsreeler, Charlie migrated from Fleet Street where he had managed Underwood & Underwood, a firm of international photographers, and had later served on the *Daily Mirror*. He had the distinction of being the first "still" photographer to be engaged by a film company, and his stills of "The Battle of Waterloo" for the British & Colonial Film Company, before the war, were published universally.

Charlie Heath, who was an Australian, had served and been wounded in the South African war, as a result of which he lost the hearing of one ear. He was a newsreel photographer with the Gaumont Graphic, served during the war as official photographer to the American Red Cross. After the war he was News Editor to the "Topical Budget" and on this reel ceasing publication he joined as a director "Wireless Pictures," a firm who sent "Press" pictures by telegraph and wireless. Later he was on the directorate of Studio Sound Service, but owing to the film slump and the collapse of the Mill Heath Studios, in which he was interested, the worry and his wounds brought on T.B. and he had spent over a year in hospital in great pain. He died on June 1st in the presence of his wife and son.

Charlie did not let his friends know how ill he was. He said he know how bad the trade was and he did not want his pals to have more worry by thinking of him. Charlie had a heart of gold, and was always out to do a good turn for a pal—there are many that he did for me personally and we mourn his passing. He leaves a wife and son, Barnes Heath, sound engineer to the Whitfield Studios.

Miss Flora Robson in Hollywood

In a talk to Press representatves in Hollywood recently, Miss Flora Robson, described as one of England's most distingnished actresses, discussing the American success of the English pictures, "Pygmalion," "The Citadel," and "The Beachcomber," said she believes that more of this calibre will be coming along regularly now and that all the industry over there needed was the incentive in the form of a threat of extinction.

India Warns Producers of Anti-Indian Films.

A warning has been issued by Mr. Chandulal Shah, Chairman of the Reception Committee of the Indian Motion Picture Congress and President of the Indian Motion Pieture Producers' Association, against alleged insults wantonly flung at Indian prestige and nationalism in pictures like "The Charge of the Light Brigade," "Bengal Lancer," and "The Drum." He states he cannot understand how a friendly people like the Americans can stoop so low as to trade in a nation's prestige and revile its patriotism, merely to earn dollars. Pictures that offend native national pride should straightway be banned, he declared, as he prepared an ultimatum to the foreign producers of "Gunga Din," which he deseribes as another seandalously anti-Indian picture. He praised the action of the British Board of Film Censors at the instance of the Seeretary of State for India in banning "The Relief of Lucknow" film before it went into produetion.

Mr. Shah says that foreign producers should be demanded to withdraw such pietures from the world market on the pain of all their pictures being banned in India.

The Church Pageant.

The retirement of the Bishop of London brings back memories of the Church Pageant at Fulham Palace, I believe in 1910, when I was one of those in the horse lines at the Pageant. We were under Capt. Hugh Pollard, the man that rescued Franco, and amongst our section was Edmund Goulding, the famous Hollywood produeer of "Grand Hotel," and Chick Worth, the make-up man. To see these two technicians frying steaks in the stable iron wheelbarrow always stieks in my mind. It was a change from whisky and doughnuts, whieh in the early days of the Pageant was our staple diet, to ward off the effects of continual rain.

Dull

Television has become a very grave competitor to the newsreels and with the support of big screen televsion by a number of circuits, the funds available for the purchase of newsreel serviees are curtailed. This, with the continual use of lavender prints that has stifled all competition between reels, has made the reels very dull recently.

Film School

The E.H.A., the association for the development of modern school practice, lives up to its announced aims by running a film school every year. This year it is being held at the Northern Polytechnic, Holloway Road, N.7, from July 13th to August 11th. Leeturers will include Mary Field, Russell Ferguson of the G.P.O. Unit, William Farr of the Petroleum Films Bureau, and Alderman J. Reeves of the Workers' Film Association; and every aspect of film in relation to education is covered, as well as general subjects, such as Censorship and technical information.

Can't You?

The L.C.C. Entertainments Committee has been on the war path again over the price of seats problem. The Leicester Square Theatre was rapped over the knuckles and had its license, in effect, suspended for two days, July 1st and 2nd. Their current film was *"You Can't Cheat An Honest Man."*

CONSCRIPTION & RESERVED OCCUPATIONS

(a) CONSCRIPTION

Members of A.C.T. who have been called up under the Military Training Act and the Reserves and Auxiliary Forces Act, should read carefully the following digest of the regulations.

Allowances

Territorials and Reservists will be entitled to the following allowances:—

If married, 17s. per week for wife.
5s. ,, ,, for first child.
3s. ,, ,, for second child.
2s. ,, ,, for third child.
1s. ,, ,, for any further children.

Militiamen will be entitled to the same allowances provided that the allotment from their pay towards their wives is 3s. 6d. per week.

A Militiaman who is not being paid family allowance as above may be granted dependant's allowance in respect of a grandparent, brother, or sister, towards whose support he has, for a period of not less than six months, been contributing an average net sum of more than 3/6 per week.

Households regarded as coming within this category are those where the income, after payment or rent, is less than 15s. per head (children of school age counting as half). Where this condition is satisfied an allowance of 7s., 12s. or 17s. per week will be paid according to the amount which the Militiaman has been in the habit of contributing. If, after deducting 5s. a week for his own keep, a man has been paying more than 15s. a week, the allowance will usually be 17s.

If he has been contributing 9s. and not exceeding 15s., the allowance will usually be 12s.

If he has been contributing more than 3s. 6d. and not more than 9s., the allowance will be 7s.

In all cases these allowances will include the man's own allotment of 3s. 6d.

In no cases will allowances be paid which bring the family income, after rent has been paid, to more than 18s. 6d. per head, or 23s. 6d. where there is only one person. A widowed mother, or other person living alone, solely dependent upon the man will normally receive an allowance of 20s. 6d. per week.

Special Allowances

The Government is forming an Advisory Committee to consider applications for special monetary assistance for Militiamen, Reservists and Territorials, who, in spite of the protection given by the Regulations (summarised below), are unable to meet their financial obligations whereby serious hardship is caused. Assistance will be granted at a rate not exceeding £2 per week.

Protection Against Summons For Eviction, Hire Purchase Payments, etc.

No creditor of a Militiaman, Territorial, or Reservist can secure the recovery of any house or rooms or other premises in which the Militiaman was in occupation at the commencement of training either as an owner, or mortgage renter, or lodger, without the consent of the Court. The payment of rent, or money due as mortgage, or for the purchase of any article by instalments, is not enforceable without the leave of the Court. The Court may be the County Court or the High Court.

Protection extends to all purchases or obligations entered into before June 15th, 1939, and also to the liabilities of other persons, such as guarantors who may become liable, or dealers, shopkeepers, etc., whose financial position is worsened owing to a number of their customers being Militiamen, Reservists, etc. *This protection extends throughout the period of training and for six months afterwards.* If a Militiaman, etc., is the sole support or principal support of his father, mother, or other dependants, this protection is extended to the dependants.

This does not mean the cancellation of any liability of debts but the postponement of them until after the period of service, plus six months. A Militiaman, etc., can ask for the protection of the Court after the end of the six months from the conclusion of training if he can prove that his difficulties are due to his being called up. If he has a mortgage with a Building Society, no payments on that mortgage will be enforceable during his period of service, but the mortgage will be extended for a similar period (for example, if a Militiaman serving for six months, has a mortgage for fifteen years, payments during service will be excused and the mortgage extended to fifteen-and-a-half years).

Health and Unemployment Insurance, Contributory Pensions, Superannuation, etc.

Militiamen who are engaged in an insurable occupation will be credited with 30 weekly contributions for Unemployment Insurance. Persons not normally employed in insurable occupations will not be credited with any Unemployment Insurance Stamps. Reservists and Territorials will be credited with contributions for the period of service under the same conditions as Militiamen. Trustees or other persons concerned with adminis-

IMPORTANT

MILITARY TRAINING ACT

Will all members please note the following decisions of the General Council to safeguard the interests of **all members affected by the Military Training Act:—**

(*1*) Conscripts shall be exempted from payment of subscriptions during their period of training.
(*2*) They should inform Head Office of the address where they are stationed in order that they can receive *"The Cine-Technician"* and all other general literature issued.
(*3*) They should maintain contact with Head Office in case of difficulty in obtaining back their employment after their period of training.
(*4*) Studio, laboratory and other secretaries of A.C.T. should furnish Head Office with the names of all members affected by the Act.
(*5*) A.C.T. will give its full support both during training and afterwards to all members affected.
(*6*) Similar support will be given to all members who register as conscientious objectors under the Act.

tration of private Superannuation Schemes are ordered to make similar arrangements for their members subject to any adjustments in contributions that may be necessary.

Compensation for Injury or Death

Compensation to Militiamen, Reservists, or Territorials, who are injured or killed during service, will be paid as for a regular soldier.

Insurance Policies

The Regulations apply to policies taken out before June 15th, 1939, or to policies taken out after that date which have been in force for one year.

Payments under Industrial Insurance Policies (i.e., policies for which weekly or fortnightly payments are made) will not be required to be paid during the period of service and an equal period afterwards. These two periods are called "the period of relief"; an additional period equal to half the period of relief known as "the period of grace." (For a Militiaman the period of relief will be twelve months and the period of grace, six months).

No forfeiture of benefits under such policies will be allowed.

If a claim arises under a "whole life" policy during the period of relief or the period of grace, the amount assured will be paid after deducting the arrears of contributions.

In the case of *endowment* policies, no deductions will be made for unpaid premiums but (as in the case of house mortgages, etc.) the date of maturity will be postponed for the same period as in the case during which no premiums were paid.

Protection is also given for holders of both kinds of policies for any premiums owing during the 28 days before joining up.

If arrears have not been paid up by the end of the period of grace and the man wishes to carry on with the policy, the Company can multiply the arrears by a figure which may be between 1 and 6, and deduct the sum arrived at from the sum ultimately assured. (If the policy is for a person from 1 to 5 years, the arrears will be multiplied by 6; if from 6 to 10 years by $5\frac{1}{2}$; from 66 to 75 the factor is $1\frac{1}{4}$; and over 76 it is 1; and so on).

These Regulations also apply to "ordinary" policies (i.e., policies upon which payment is made quarterly, half yearly, or yearly) except those where the premium paid is more than £25 per year.

(b) RESERVED OCCUPATIONS

Members should note the contents of the following letter which A.C.T. has received from the Ministry of Labour:—

I am directed by the Ministry of Labour to refer to your letter on the subject of the Provisional Schedule of Reserved Occupations. A decision was reached to reserve the following occupations at the ages stated:—

Camera Operator
(Still and Cinematograph)

	Age
Camera Operator (Cinematograph)	30
Cinema Operator (Still)	30
Camera Operator (Process Work)	30
Photographer (Commercial Portrait)	30
Sound Camera Operator	30
Sound Recrdist	30

Photographic Processing
(Cinematograph Film)

	Age
Developer	30
Dryer	30
Printer, Reduction Printer	30
Optical Printer	35
Sensitometric Control Asst.	30

Cinematograph Film Production

Film Editor	30
Film Commentator	30
Film Librarian	30

Subsequent to this decision, the Schedule was examined, as has been announced in the Press, to see how far its application might properly be modified in peace-time to give the maximum assistance in the recruitment of men for general service in the Territorial Army, the other Auxiliary Forces, and the Civil Defence Services. At a result it was decided that it was not justifiable to debar men belonging to certain occupations, including those just mentioned, from being accepted for any form of National Service for which they might, in peace time, volunteer. The occupations mentioned therefore do not appear in Part III of the new edition of the Provisional Schedule: they remain, however, upon the Provisional Schedule of Reserved Occupations which would come into operation upon the outbreak of war.

The modification of the application of the Schedule to men in peace-time referred to above does not affect the position of women, who, except in the case of women in the Retail Distributive Trades, where the age of reservation is 25, are reserved, irrespective of age, in all the occupations included in the Schedule.

I am to say that it has been decided to reserve all women workers (other than labourers) in productive productive processes in cinematograph film production and processing. An entry to give effect to this decision has been included in Part IV of the revised issue of the Provisional Schedule of Reserved Occupations.

I am to add that it was decided not to include in Part III of the Provisional Schedule the following occupations:—

Film Studios

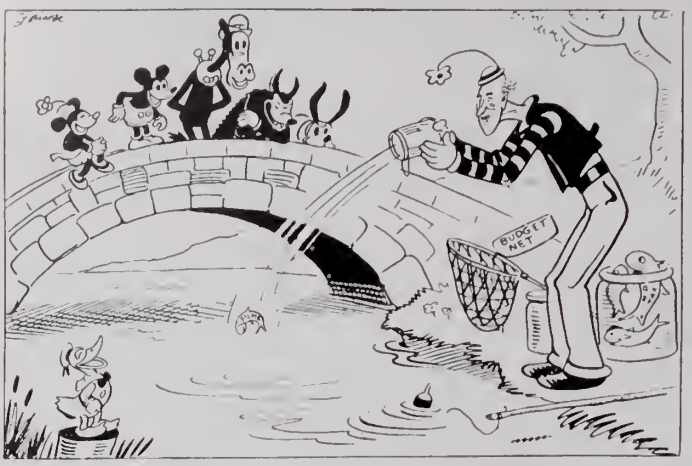
Art Directors
Assistant Art Directors
Scenarists
Readers
Production Directors
Assistant Production Directors
Directors
Assistant Directors
Associate Producers
Production Managers
Boom Operators and Assistants
Sound Loaders
Sound Maintenance

Photographic Processing

Optical Printers Assistant
Stock Joiners
Negative Cleaners
Negative Cutters Assistants
Still Darkroom Workers
Assistant Cutters
Chemical Mixer

Other Workers

Projectionists
Stock Storekeepers
Vault Keepers



A BUDGET RELEASE—From a Walt Simon symphony.

[*Courtesy: Strube and The Daily Express*

THE FI

GEORGE H.

HOW IT WA

ON April 1st renters' quota was increased 5% and we looked forward to at least some measure of improvement in British film production. Shortly afterwards there were 12 films on the floors of British studios—more than had been in simultaneous production for over two years. At last A.C.T's. unemployment figures had begun to drop.

Then—the Budget. Like a bolt from the blue the Chancellor of the Exchequer decided to raise a further million pounds from the film industry. His method was so clumsy that the full implications of his proposals were not apparent for a day or two. Then it became obvious that those sections of the film industry which could least afford to bear it would be crippled by the tax. The small British producer, the laboratories, the documentary and short producer, bodies such as film societies, the newsreels—and through all these the technicians and other workers—were going to have their very existence jeopardised.

A.C.T. wasted no time and on April 27th wrote to Sir John Simon urging him to reconsider his proposals. Other sections of the industry made similar approaches. We were all referred to the Chancellor's advisors at the Customs and one by one forwarded memoranda to be subsequently amplified at interviews with the Chairman of the Board of Customs. Thorold Dickinson and myself represented the A.C.T. We were accompanied by Mr. George Woodcock of the Trades Union Congress and colleagues from the Electrical Trades Union.

We claimed that the increased cost of film due to the new tax would curtail the activities of firms engaged in film production. The volume of production would decline and the already very heavy unemployment amongst technicians and other grades in the industry would be increased. The additional tax would nullify any benefit which might in time result from the Cinematograph Films Act, 1938, as it was bound to retard (1) the production of films over and above the stipulated minimum required by the Act to fulfil the quota; and (2) the absorption of those technicians and workers who were today unemployed. The position would be further aggravated by displacement of labour in the newsreel, documentary and laboratory sides of the industry where at present there is relatively little unemployment.

	Existing Duties.		Proposed Duties.	
	Full Rates.	Preferential Rates.	Full Rates.	Preferential Rates.
Unexposed sensitised photographic plates and film, other than X-ray plates and film—				
(i) Kinematograph film	1-3d. per linear foot of the standard width of 1 3-8 inches.	2-9d. per linear foot of the standard width of $1\frac{3}{8}$ inches.	9d. per square foot	6d. per square foot.
(ii) Other film and plates	25 per cent. *ad valorem*.	Nil.		5d. per square foot.
Exposed kinematograph film— (i) of a width not exceeding one inch; or (ii) containing only a single sound track; or (iii) shown to the satisfaction of the Commissioners of Customs and Excise to be a duplicate of film on which customs duty has been paid at the rate of 6d. per linear foot and not refunded.	positives 1d., negatives 5d. per linear foot of the standard width of $1\frac{3}{8}$ ins.; or in the case of sound tracks imported separately certain *ad valorem* duties imposed negatives under the Import Duties Act, 1932.	positives 2-3d., negatives 3 1-3d. per linear foot of the standard width of $1\frac{3}{8}$ inches.	2d. per linear foot*	
Other exposed kinematograph film			6d. per linear foot* *Increased proportionately where width exceeds $1\frac{3}{8}$ inches.	

LM TAX

LVIN describes

WITHDRAWN

The increased import duties* would drive the making of duplicate negatives out of the country and deprive British labs of a fortnight's work per annum which would almost inevitably be met by a reduction of staff. Unemployment, we concluded, had been of grave concern to the unions during the past year. Anything that prevented the reabsorption of unemployed workers would aggravate a situation already lamentable. Such a possibility was presumably not envisaged when the decision to make the new tax was reached, and we therefore strongly urged that the proposals be reviewed. We were promised, as all the other delegations were, that our views would be sympathetically considered, and we came away not unhopeful. Meanwhile Members of Parliament had been contacted and our views were made known in the House.

There were other developments. Mr. D. E. Griffiths, President of the Kinematograph Renters' Society, called a meeting of all sections of the trade. A.C.T. accepted the invitation and all sections of the industry attended. There was not one important group outside. As Tom Williams, M.P., said in the House, Sir John Simon had done in five minutes what years of effort had previously failed to achieve. He had united the entire trade. This meeting decided on a trade deputation to the Chancellor. The request was granted and Mr. Griffiths led us to the Treasury. Every section put forward a précis of its own case and the President of the K.R.S. welded all the various points of view together in an excellent introductory speech. There were six other speakers.

For labour, I stressed that organised labour had not had an easy time in the film industry, but now both in production and exhibition there is almost general recognition of Trade Unions and many agreements had been negotiated. Others were in the course of negotiation at the present time. Any adverse effect on the industry, anything which affected the margin of profit, must tend to make those negotiations more difficult. A.C.T. members engaged in film production worked an average of 11 weeks last year. Considerable hardship consequent upon unemployment had resulted. Even the slightest decrease in production would make that hardship very grave indeed. We were again informed that very careful attention would be paid to all we had said. And again we came away not unhopeful. *(Continued on next page)*

**The import duties, unlike the excise duties, have not yet been repealed. A.C.T. is pressing for the original difference between the negative and the first print to be restored in order to provide the necessary inducement to importers of foreign films to continue having dup. negatives made in this country.*

MUST CINEMAS INCREASE PRICES?

MUST CINEMAS SHORTEN PROGRAMMES?

MUST NEWS REELS BE KILLED?

MUST STUDIOS REDUCE PRODUCTION?

MUST THERE BE MORE UNEMPLOYMENT IN THE FILM INDUSTRY?

YES!—IF THE NEW FILM TAX BECOMES LAW

Burdened with taxation as it is, the Film Industry, which paid over £6,000,000 in entertainment tax alone last year, will be forced to pass on the increased film tax to you—the regular patrons of cinema theatre

If there is not a direct increase in prices of admission, it may be necessary:—

(a) To curtail the length of programmes
(b) Cut news films to a minimum
(c) Produce fewer feature films, shorts and documentaries
(d) Put many thousands of film employees out of work

THUS WOULD BE STRANGLED ONE OF THE NATION'S MOST PROLIFIC SOURCES OF PROPAGANDA BOTH AT HOME AND ABROAD

Issued by:
The Proprietors and Employees of the Film Industry of Great Britain, Broadmead House, Panton Street, Haymarket, London, S.W.1

The advertisement that helped

A NEW STILL CAMERA

A NEW photographic instrument, called by its designer the "action portrait camera," has been introduced to Hollywood.

The new camera, which embraces some revolutionary principles, is the creation of Gordon Head, Paramount still photographer, who used it for the first time on "Cafe Society," shooting pictures of Madeleine Carroll on a speeding aquaplane.

Speed is the great advantage of the new camera—not only mere shutter speed, but speed in posing pictures and arranging composition.

The familiar flowing black cloth is abolished and its place taken by a completely new type of finder.

This is probably more significant than the layman may imagine. The procedure with the ordinary portrait camera is roughly as follows:—

> The photographer stops down his lens, sets his shutter. Then he must line up the people in the positions in which they are to be photographed, ducking repeatedly under his black cloth and out again, meanwhile adjusting his camera to the proper range. While the subjects remain absolutely still, the cameraman then has to insert his plate in the camera and pull out the slide before taking the picture. If anybody in the group moves, or the camera is joggled ever so little, the picture will come out blurred by movement or out of focus.

With the Head "Action Portrait Camera," this procedure is simplified to this:—

All adjustments to lens and shutter are made, and the plate is inserted and the slide removed. Peering through his special finder, Still Photographer Head poses his subjects, simultaneously adjusting for range—and the moment the people are lined up as he wants them, Head snaps his picture.

The patented finder is the secret. It enables Head to see just what he is going to get on the plate while the plate is in positon for immediate exposure. Too, it gives a more accurate image, because the cameraman look right through the lens, instead of through a series of prisms, thus eliminating the possibility of distortion.

With this new camera, which takes a plate 8 x 10 inches, it is possible for the first time to take action pictures of such size with the same convenience as a candid camera affords, yet obtaining the same high quality negative as a portrait.

When Head shot stills of Madeleine Carroll on an aquaplane being towed by a speedboat at 45 miles an hour, he used the fastest shutter on any camera in existence, excepting only precision instruments such as those used in scientific research laboratories. It is an airplane-snapping camera lens, and the variable opening focal plane shutter has a speed of 1/2,000th of a second.

Mounted on a tripod, the "Action Portrait Camera" can be "panned" just like a movie camera, enabling the photographer to follow rapidly-moving objects and snap his picture at any desired moment.

The new camera has had an even more severe test of its capacity for action shots on Cecil B. de Mille's "Union Pacific," where it was used for shooting such scenes as an Indian attack and a train wreck.

With a camera case built of durable but light airplane metal, the new instrument has the additional advantage that it weighs only a fraction of the poundage of other 8 x 10 cameras and can be carried or moved about with ease.

Into the construction of this photographic marvel Head has put $5,000, 18 months of actual work and ten years of thought.

Hollywood camera experts say it was worth it.

THE FILM TAX

(Continued from previous page)

The matter was also raised by the trade members on the Films Council. The matter was discussed for the whole of a special meeting. The stony silence observed by that body prevents me from stating the decision come to. It will suffice to say that the trade members were very pleased with their afternoon's work.

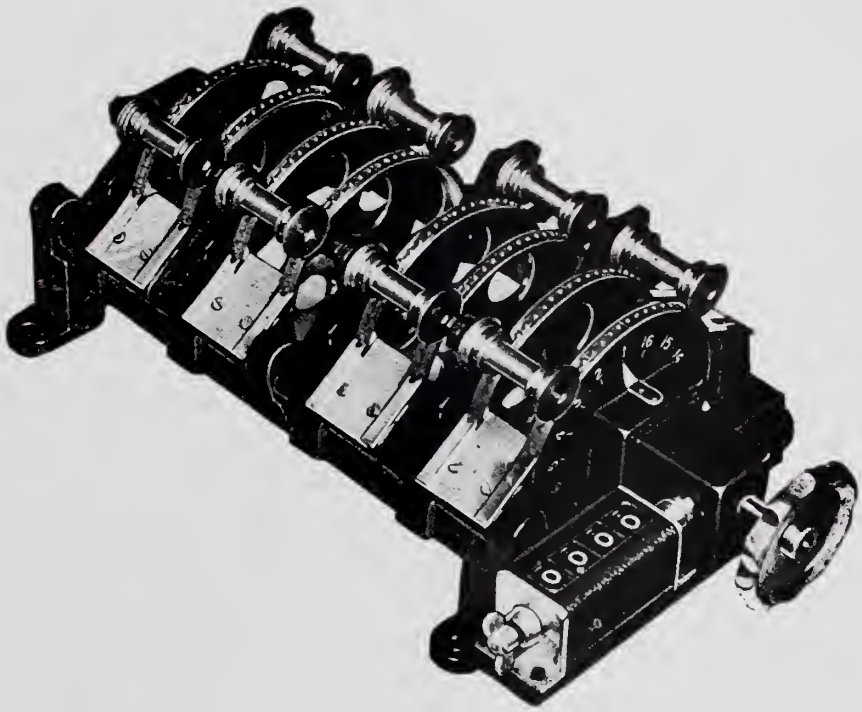
We then sat back and waited for the Chancellor's amendments to his Finance Act. At last they came. A few concessions here and there, with the major problem completely ignored. Mr. Griffiths again called the trade together. Until then the general feeling had been to act as gentlemen. At this meeting the old school ties were discarded. A big campaign was decided upon. Within less than 24 hours a trailer was showing in almost every cinema in the country, a press conference had been held, space of from half-a-page to a page was taken in every national daily, and a small committee went down to the House of Commons to see that the necessary amendments were tabled and to lobby support for them.

The next day the Excise Tax was withdrawn.

A complete victory for a shrewd publicity campaign. Hard-hitting had done overnight what superb decorum had failed to achieve in over a month.

I just wish to make two points in conclusion. Firstly, I worked alongside one or two members of the trade who, until they wanted its help, had completely ignored A.C.T. If they want to ensure future co-operation on other matters of common interest I urge them to follow the lead of the majority of employers in the film industry and recognise the trade unions which represent their employees. Secondly, a General Election is not far off. May I remind the trade that they achieved their victory through their own organisation and power. If they try and repay the present "concession" by an overdose of propaganda for the present Government they will alienate the future support of the vast majority of trade unionists who don't only criticise Sir John Simon for the film tax but hold him responsible for the Trade Disputes Act of 1927 (the most repressive trade union legislation of the century) and, together with his Governmental colleagues, largely responsible for the tension in the world situation today—which has not been without its ill-effects on the British film industry.

FOUR-WAY SYNCHRONISER



FILMS & EQUIPMENTS LTD.

121 WARDOUR ST. :: LONDON W.1

LAB TOPICS

LIGHTING IN LABORATORIES

The minimum standards of lighting in film laboratories are covered by the regulations which came into force under the Factories Act on July 1st. An explanatory leaflet has been issued by the Home Office and states that Section 5 of the Factories Act requires for the first time sufficient and suitable lighting in all factories and empowers the Home Secretary to prescribe standards. Following the recommendations of a Committee appointed for the purpose, the following are the minimum standards now in legal force:—

1. Over the interior working areas of any factory the illumination at floor level, or at three feet below the level at which work is carried on, shall not fall below 1.0 foot-candle, without prejudice to the illumination required for the work itself.
2. Over all interior parts of any factory, other than working areas, over which persons employed are liable to pass, the illumination at floor level shall not fall below 0.5 foot-candle.

FAIR LABORATORIES

A.C.T. members who are responsible for placing the processing of their films are asked to note the following laboratories which were covered by the recent Agreement signed with the Film Production Employers' Federation and the great majority of whose staff (in several cases every single technician) are A.C.T. members.

Members will help their own organisation by encouraging the placing of work with laboratories which observe trade union conditions and employ trade union labour.

ASSOCIATED BRITISH LABORATORIES, ELSTREE
AUTOMATIC BARNES
BRITISH LION LABORATORIES
DENHAM LABORATORIES
G.F.D. LABORATORIES
GEORGE HUMPHRIES & CO.
KAY FILM PRINTING CO., FINSBURY PARK
J. H. MARTIN
OLYMPIC KINE LABORATORIES
PATHE PICTURES LABORATORIES

3. Over all open yards, passages, roadways, and other open places in a factory, upon which persons are employed or over which they are liable to pass, the illumination at ground level or at other level of employment or passage, shall not fall below 0.1 foot-candle, without prejudice to the illumination required for the work itself, or for the adequate lighting of dangerous parts and places or other emergency.
4. Where any light source in a factory is less than 16 ft. in height above floor level, no part of the source or fitting having a brightness greater than 10 candles per square inch shall be visible to any person whilst normally employed within 100 feet of the source, unless the angle of elevation from the eye to the source exceeds 20 degrees.
5. All local light sources in a factory shall be provided with suitable shades of opaque material or other effective means by which they shall be completely screened from the eyes of every person employed at a normal working place.

   (A LOCAL LIGHT is intended to mean a light so placed as to illuminate only the area or part of the area of work of a single operative or small group of operatives working near to each other).
6. Adequate means shall be provided as far as reasonably practicable, by suitable screening or placing or other effective method, to prevent discomfort or injury by the reflection of light from smooth or polished surfaces into the eyes of the worker.
7. Adequate means shall be taken as far as reasonably practicable to prevent the formation of shadows which interfere with the safety of or cause discomfort to any person employed.
8. No light source which flickers or undergoes abrupt changes in candle power in such manner as to interfere with the safety or efficiency of any person employed shall be used for illumination of a factory.

SUB-STANDARD CONDITIONS

The Agreement between A.C.T. and the Employers' Federation has been called the Standard Agreement, writes Mr. Johnson-Phillips,—the word "standard" refers to a regulated scale of wages, not differentiating between 35-mm. and 16-mm. workers. There are, however, the following problems to be faced:—

(a) For the most part 16-mm. workers have been accorded the same salary increases as for those on 35-mm, but this has apparently applied **only** in instances where both types of film are being processed by the same company.

(b) Where firms have been engaged solely on 16-mm. work no wage agreement has been reached. Such companies are not members of the Film Production Employers' Federation.

(c) Evidence is to hand of a laboratory where different but associated companies are running on the same premises both 35-mm. and 16-mm. processing plants. Only the 35-mm. workers have received the benefits of the Agreement.

This is obviously unfair. Here are colleagues working nearly side by side, the 35-mm. section receiving the agreed wage and the 16-mm. getting the lower scale: the latter, conscious of the salary difference for identical work, endeavouring to forget it until to cover them some correction can be made and a supplementary understanding be reached between the A.C.T. and Employers.

The difference is the outcome of what? Those who would have been responsible for the signing of the Agreement on behalf of the 16-mm. processing company declared, I understand, that had they done so they would have been in danger of losing money in current and future business deals—their profits would go—if they paid the higher wages asked for by the 16-mm. workers. The directors of the associated 35-mm. firm have stood loyally by the Agreement, represented as they are in the Employers' Federation. But they have had no power apparently to sway the policy of the 16-mm. company who, whatever the moral rights may be, maintain they will not pay wages in accordance with the Standard Agreement.

In the comparable jobs, too, 16-mm. workers have the following extra difficulties which do not affect the similar workers in 35-mm. :—

Printing:

(*a*) S.M.P.E. or D.I.N. . . . Sound or Mute.
(*b*) Focussing.
(*c*) Masking.
(*d*) Halation.
(*e*) Examination for scratches, etc. Need for glass.

Visual Developing, Examining and Joining, Projecting and Viewing:

Increased difficulties over 35-mm. due to smaller size of film.

In view of these differences I feel, says Mr. Phillips, that 16-mm. operatives are not merely deserving of a similar wage scale, but even of a reasonably higher remuneration.

THAT MARGATE AIR

On Sunday, June 25th, nearly 200 laboratory members went to Margate for the day on an outing organised by the A.C.T. Laboratory Social Club. A special tram had been chartered by the Club and promptly at 10 a.m. it pulled out of Charing Cross. Within a few moments of their departure the party was in full swing—singing at the tops of their voices to the music supplied by Jimmy Walker and his partner on their accordeons. Lunch and tea were served at Messrs. Sam Isaacs' Restaurant, Margate, and judging by the way the food vanished the Margate air must be a perfect appetiser.

Dreamland was a great attraction and it was very amusing to watch some of our more sedate members holding their hats on while sampling the scenic railway and other equally nerve-racking contraptions. As we know only too well, all good things must come to an end, and sharp at 9.10 p.m. the A.C.T. train pulled out of Margate —homeward bound—but that was not the end of the fun and frolic. You might expect that most of the people would be tired after such a long day, but to see them laughing, singing and drinking on the way back you would have thought that they had been resting all day. Blimey, that Margate air certainly is good stuff!

I am sure that it is perfectly safe to say that everybody had a thoroughly good time, and I'm sure that all members of the party will join me in thanking the Lab. Social Club Committee and Secretary for such a splendid time.

HUMPHRIES' LABS

Nemo tells us that the directors and staff of Bestlab enjoyed a perfect day on the occasion of their annual outing to Boulogne on Saturday, June 10th. After an excellent lunch at the Buffet Maritime Boulogne, the afternoon and early evening were spent in seeing the sights, some of the party visiting Le Touquet. Everybody managed to board the boat for the return journey, dinner being served on the train. The arrangements were capably organised by Mr. H. W. Vingoe, Secretary of Bestlab Social Club, who deserves the appreciation and thanks of all who participated.

A series of dart matches arranged between the day staff, night staff and office staff have resulted in a number of enjoyable and sociable evenings being held, enabling the participants to fraternise amid convivial surroundings, opportunities that are keenly welcomed as a means of creating friendly rivalry and a better knowledge of work associates in their lighter pursuits.

UNITY THEATRE

Unity Theatre has acquired the Kingsway Theatre from September 1st. It will be run on a professional basis. This striking new development has been made possible as a result of a greatly increased membership. We hope to give further details in our next issue.

Members who would like an interesting holiday, together with the chance of meeting some of the leading figures in the theatre and progressive world, cannot do better than pay a visit to the Unity Theatre Summer School. It lasts from August 19th to September 2nd. The terms are 35/- to 55/- a week according to the type of accommodation required. The school is at Clayesmore School, near Blandford, Dorset, and its sixty acres of grounds provide facilities for swimming, boating, dancing, tennis, billiards, cricket, golf and riding. There is also a fully equipped theatre where plays and films will be shown. The surrounding country, with Cranbourn Forest and the sea a few miles away, is renowned as among the most beautiful in England. Applications through A.C.T. or direct to Unity Theatre, 1, Goldington Street, N.W.1.

J. L. Hodson's "Harvest in the North" followed record-breaking "Babes in the Wood" at the Unity Theatre. The play depicts the vicissitudes of a Lancashire mill-working family and their neighbours during a heavy spell of unemployment. Drink, fornication, rape, suicide and murder "decorate" the play; but a straight narrative of the basic realities of unemployment without sensational side issues, might have told a better story. "Harvest in the North" consequently lacked the same degree of propaganda punch as previous Unity productions. Nevertheless, a discerning audience (and Unity audiences are that if nothing else) can dissect the wheat from the chaff, and the play should be seen. Andre van Gyseghem's production was brilliant and special praise should also be accorded to George Haslam for a realistic setting. The acting was well up to usual standards.

FILMS WITH A PURPOSE

(*Continued from page 59*)

troopers prepare to fire on the crowd and at that moment the old professor appears on the balcony and starts to speak, at first gently, and then louder and louder. Gone now is his aloofness from the political battle. The realities of Fascist rule and terror have taught him much, as they are teaching others of his kind—and not only in Germany. He identifies himself with the fight to which his son has devoted his life and as he stands there denouncing those who have dragged Germany back to barbarism, he calls upon the people to resist and fight back. Those are his last words—his body topples forward, riddled with bullets from the storm troopers below.

It would be idle to call *"Mamlock"* propagandist. It is only propaganda in the sense that truth and honesty and human decency are propagandist. It is one of the few really great films and the British people might well ponder the nature of our own democratic system that prevents them from seeing such a sincere, moving and artistic film as *"Professor Mamlock."*

R.B.

QUERIES AND ANSWERS

This is a new feature. We invite queries on any points of technical and historical interest. We also want readers' co-operation in giving or expanding answers.

1. Q.—Has the toning of prints a detrimental effect on the sound track? If so, what is the approximate loss and what steps have been taken to overcome this?

A.—There seems to be no satisfactory published information on this subject. Full data must wait upon large-scale experimentation owing to the number of variables concerned. We are indebted to ILFORD LTD. for the following data:—

"The majority of light sensitive cells in sound-on-film reproducers are of the caesium type and their sensitivity generally has a peak in the far red at about 8,000 A° and only a slight peak in the blue rendering them particularly sensitive to a ½-watt light. If the sound track is toned to a red or warm brown hue the exposed portions become less opaque to red light and a loss of volume is to be expected.

In a paper by J. M. Nickolaus (*Journal of the Society of Motion Picture Engineers, Vol. XXIX, p.65*) print toning is described with particular reference to *"The Good Earth"* and the following comment is made:—'From the standpoint of sound, there is little to report other than the fact that the sound department advised that all tests made by them pertaining to the effect of toning the sound-track showed no detrimental effects upon the quality of the sound.'

The sepia tone of *"The Good Earth"* may have been of such a hue as to effectively filter out the colour to which the sound reproducing light cell was most sensitive, otherwise a few decibels loss in volume might have been expected. In view of the fact that few or no difficulties seem to have been experienced by the sound department concerned it is likely that no steps have been taken to overcome any possible loss of quality other than perhaps the careful selection of toning dyes.

In general, the effect of toning will depend almost entirely on the type of process employed, e.g., chemical toning such as sepia, dye toning by means of mordants, or colour development (which has not been used much up to the present). Colouring a print seems likely to influence a variable density sound track more than a variable area track since colouring will mainly affect the effective gamma, this possibly leading to distortion in a variable density track and a loss of volume range in a variable area track. There are two other important points, one of which is the effect of the colour on the effective density to the source and cell combination of the reproducing equipment. The other point is that a dye toning by means of a mordant may result in a loss of definition when compared with the original black and white or a print coloured by any of the other two methods mentioned. Such a loss of definition will obviously reduce the high frequencies."

Kodak and Western-Electric both state that there is no detrimental effect upon sound quality if the most popular method of toning (the uranium nitrate process) is used and sufficient time is allowed for washing, beyond a possible slight reduction in output, which is readily compensated by suitable adjustment of the output fader.

R.C.A. comment that "There is no loss in sound quality as a result of the sepia toning process. This process increases contrast; therefore prints made for toning should be 0.2 lighter in density than standard prints. We are unable to give a loss figure for this toning process, as this varies considerably."

Western Electric add: "Commenting on the toning of positive film, it might also be well to mention the effect of tinting. The maximum transmission loss occasioned by the use of tinted film amounts to 6 db which is a violet tint. Other tints on the Ridgeway Hue Scale show considerably less loss, the average loss of tinted base film being 3½ db. In order to compensate for this loss it is customary to cut the print timing by from one to two printer points, so that the sound level of the projected film will be unaltered. As tinted base stock is very seldom used, this does not occasion much concern."

2. Q.—When was the camera truck first used?

A.—The earliest use of the camera truck is often attributed to the German cinema. This is inaccurate. Those who make the attribution probably have in mind the certainly remarkable use of a camera truck in such films as Murnau's *"The Last Laugh"* (1925) and Hans Schwarz's *"The Wonderful Lie"* (1929). But the late date of these films in itself points the error. D. W. Griffith had used a moving camera as early as 1913 in *"The Birth of a Nation,"* notably in the ride of the Ku Klux Klan. But probably no camera truck as such was used for the purpose; the camera being operated from a car moving forward in front of the galloping horsemen. This, of course, represented in dramatic form one of the earliest known effects of the cinema. Audiences in the 1890's were being thrilled by films consisting of shots taken from moving trains.

Some form of camera truck (and also some form of crane) was certainly used by Griffith in *"Intolerance"* (1915).

It is claimed that the earliest camera truck actually built for the purpose was ten or more years earlier, by Cecil Hepworth in a film at the Walton-on-Thames studios. We would be glad of confirmation of this.

(Continued at foot of next page)

Edited by Frank Sainsbury

CLOSE-UPS

No. 2.—ARTHUR ELTON

THE first thing that struck me about Arthur Elton, the well-known documentary producer, when I went to work for him as his assistant in 1935, was his eating capacity, and since then I have never seen it equalled in the film business. Anyone who's eaten at a Chinese restaurant knows the size of the meal they give you and how it fills you up. Well, I've seen Elton go right through a meal like that and then have the same again right away. His beard and bulk, with his appetite, complete the first impression of an imposing personality.

At that time he was producing a programme of films for the Gas people, the first ever undertaken by a commercial concern. One of those films, *"Housing Problems,"* about the people in the Stepney slums and new housing estates, has become in its own way a little classic of documentary. Elton had joined the old Empire Marketing Board film unit in 1929, just after the making of *"Drifters."* He had been out of work for a year and saw the job advertised in the agony column of "The Times." In those days documentary films were only just starting in this country and they had very little to work on, either of previous experience or technical facilities. The whole unit was housed in a room 8 ft. square, where all office work and cutting were done, including projection with a hand-turn projector. Elton's first two films for E.M.B. were *"Shadow on the Mountain"* about sheep farming in North Wales, and *"Upstream"* about Scottish salmon fishing. Most of these early E.M.B. films went down well in the theatres although the public had seen nothing quite like them before (except the Secrets of Nature series), and in spite of the scorn poured on the documentary workers—they were called "litterati" in the Trade press. Jack Miller was cameraman on both of these films of Elton's, and Elton still remembers gratefully how helpfully he worked, as Elton had until then never had anything to do with cameras and shooting.

However, this was by no means his first experience of the film business. He comes from a respectable county family and when he left Cambridge University in 1927

(Continued on next page)

QUERIES—*(Continued from previous page)*

3. Q.—What proportion of cinemas in America are wired for push-pull? Are any cinemas so wired in England?

A.—There are no records available from which an answer to this question can be derived. In the opinion of Western Electric, "a very small proportion of the total number of operating cinemas are so equipped, either in the United States or England."

R.C.A. concur: "only a few key cinemas in America are so wired . . . in England we are of the belief that the Empire, Leicester Square, is the only cinema so equipped."

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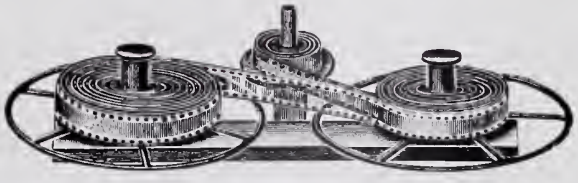

Spooling frame showing film and apron being wound on to film reel.

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CLOSE-UPS

(*Continued from previous page*)

his parents hoped that he would become a barrister (this now conjures up plenty of amusing possibilities). But the old silent version of *"California Straight Ahead,"* with Reginald Denny, had fired his interest in films and in spite of the fears of his parents, who thought of the film business as about on a line with brothel-keeping, he decided to have a smack at it. At that time the Federation of British Industries were running a sort of apprenticeship scheme for the film industry and under this he applied with over 100 others for a job in the Gainsborough Scenario Department. Angus Macphail, whom he had known at Cambridge, was so relieved to see a sane face among the dozens of crazy maniacs who, then as now, infested or tried to infest the film business, that he gave him the job straight off, starting at £3 a week. Here he worked for a time with Macphail and Robert Stevenson, who is nowadays an outstanding director, in the scenario department, his job in general being to read any book that anyone in the studio thought might be suitable for filming. In this way he read all the works not only of Ruby M. Ayres but also of Emile Zola, whose stuff is at last being recognised as first rate for the screen (*La Bête Humaine, Germinal*).

In 1938 he went from Gainsborough to work in Berlin. The idea was for him to supervise productions intended for the English market to try and get them more or less in line with British taste. In those days of silent films producers would tout round from country to country trying to raise enough to start the production, and Friday was always an exciting day as the producer returned to the office and the staff was on tenterhooks to know whether he had been able to raise the wages. Now, of course, sound and dialogue have put paid to any hope of getting finance from outside countries. One super production they made for the English market was a version of *"The Hound of the Baskervilles."* Not being able to find a large enough dog for the title role, they dressed up a calf and got it to play the part, with results that can be imagined.

On coming back to Gainsborough, he did all sorts of jobs, including assisting Adrian Brunel at cutting. As he could never learn to join, this meant taking film out of tins and putting it back again. Life at Gainsborough in those days was very pleasant, but quite mad. There was one picture which was to have an elephant in it. The elephant had to be accompanied everywhere by a Shetland pony, without which it would not move. Unfortunately the first time it went into the studio it stepped straight through the floor, and that was that. Then came the big fire at Gainsborough when the studios burned down and a lot of people including Elton got the sack.

Not being able to get into the film business again for the time being, he got a job copywriting for an advertising agency. This meant thinking up snappy slogans to go on the backs of tram tickets and so on, but he didn't do very well at it and got the push after three months. After that he did some script work for A.S.F.I. at Wembley and when that came to an end was out of work for a year. By this time he had worked in practically every studio department and had a background knowledge of pretty well every production process. He thinks that the modern tendency to increased specialisation in production where the camera crew get no insight into what goes on in the sound booth, or the sound men into what goes on in the cutting room, is definitely a bad thing. A general background knowledge makes a man all the better as a recordist, editor or what-not, and also keeps him from feeling so helpless if he falls out of work in his own particular job.

Elton's interest now lies in documentary. In 1935 he took a large share in forming Associated Realist Film Producers, which now has over 50 members, and later joined Film Centre when that was set up. He is producing consultant to several oil companies, including, of course, Shell, who have their own film unit. What he likes doing best and therefore what he does best is to explain by means of film some pretty obscure technical process with such lucidity that it can be not only understood but enjoyed by anyone. He has seen documentary progress from the days when they had the sound put on for them by G.B. through the time when they got their own sound (his own *"Workers and Jobs"* made for the Ministry of Labour was probably the first British film to use natural actors speaking dialogue) and the setting up of the G.P.O. Film Unit, down to today when documentary is alone in being able to show an almost 100% record of employment for its workers. Now he thinks the next step should be in the line of unambitious second-feature story-documentaries, where the story arises naturally out of the background. I won't say more of this now, as he has promised *The Cine-Technician* an article about it shortly, but Elton thinks that this development may very well prove to be the beginning of a real improvement in the British film industry.

OBITUARY

It is with deep regret that we have to report the death of Lewis Stunt. He died under tragic circumstances after finishing work on "French Without Tears," directed by Anthony Asquith.

Aged only 23, he was an assistant cameraman who showed great promise. During his career in the film industry he had been a staunch member of A.C.T. and had acted as the union's representative in the camera department at Pinewood Studios.

We extend our very deep sympathy to his widowed mother.

AMERICAN DOCUMENTARY ORGANISES

American documentary film workers have just set up an organisation, known as The Association of Documentary Film Producers, along similar lines to A.R.F.P. in this country. (A.R.F.P., by the way, have cabled their congratulations to the new brother organisation). The inaugural meeting was held in New York, where temporary quarters are at 1600 Broadway. Hollywood members participated in the voting by wire and telephone. Joris Ivens (director of *"Spanish Earth"*) as President, Paul Strand and Willard Van Dyke (responsible for the photography of *"Tabu"*), as respectively first and second Vice-Presidents, head the organisation. Its purposes are stated in the constitution to be—to develop the artistic and technical standards of independent, creative films; to publicise such films; to provide a means of co-operation between their makers; and to act as a source of information on such films.

The new Association is the result of a crying need for such an organisation felt by a group who originally came together to assist the World's Fair Education Committee in the selecting, procuring and publicising of a programme of independent films to be shown in the Education and Science Building at the Fair.

FILMS WITH A PURPOSE

"CONFESSIONS OF A NAZI SPY"

MANY years ago Hollywood, in the Spencer Tracy film, *"The Power and the Glory,"* experimented in what is called "narratage," and since then many people must have thought that the use of a semi-newsreel technique might be a useful and economical way of giving continuity in a fiction story. And now at last, in *"Confessions of a Nazi Spy,"* the Warner Bros.' hard-hitting exposure of the German spy racket in America, such a technique has been applied with admirable results. I think it is fair to say that the success of the *March of Time* reels has had something to do with the adoption of this method. Their style of rapid and concise narration is admirably suited to giving the background to such a story.

This innovation would make *"Confessions of a Nazi Spy"* technically interesting but nothing more. But for trade unionists and all democrats the film has a significance which goes far beyond technical experiment. At last we see a film which has a definite point of view and dares to express in a way which some of us have despaired of ever seeing, what thousands and millions of people are actually thinking outside the cinemas.

It is this which makes *"Confessions of a Nazi Spy"* one of the outstanding events in the history of the screen. I can only hope that it will be the forerunner of many more films which will have an adult point of view and not be afraid to face up to the accusation of embarking on controversial subjects.

(As we go to press, news comes from Hollywood that *"Confessions"* is to be followed by a film about the German clergyman Martin Niemöller, who has been in a concentration camp for two years on a charge that amounts to refusing to substitute Hitler for God).

S.C.

"JUAREZ"

THE Metropolitan Motion Picture Council of New York inform us that they have decided to sponsor *"Juarez,"* to be seen in London shortly. They urge all individuals and organisation interested in improving motion pictures to support this film. This follows the Council's recent policy announcement to stimulate substantial support of worthwhile films at the box-office through special campaigns for a few sponsored pictures each year.

The Council plumps for *"Juarez,"* because "it presents the case for democracy powerfully and in dramatic form." The film, starring Paul Muni, Bette Davis, and Brian Aherne, is, the Council continues, "good entertainment, but it also embodies a strong plea for tolerance, for liberty and for the very fundamentals of American democracy without resorting to the cheap emotionalism of flag-waving."

The writer read all this before going to the trade show. He was disappointed. The film is undoubtedly good entertainment, but its message is about as confused as the minds of many present day supporters of democracy. Unfortunately, perhaps, for my reactions to *"Juarez,"* I saw *"Professor Mamlock"* at the Film Society a short time previously. The first film got through the B.B.F.C., the second didn't. And that sums up the difference between the value of the two films!

Any film co-starring Paul Muni and Bette Davis is worth seeing, even if, as in *"Juarez,"* they never appear in the same scene together. Technically, too, A.C.T. members will want to see the film, the first photographed on the new Eastman Plus X negative.

But if you want a film with a message, stick to *"Professor Mamlock"* or *"Confessions of a Nazi Spy."* If, however, you want to see a good film, and messages one way or the other are of no great concern, then you can still see *"Juarez"* not only without disappointment but most likely with great appreciation.

G.H.E.

"PROFESSOR MAMLOCK"

IT is difficult to write soberly about *"Professor Mamlock"* because it is the kind of film that starts where *"Confessions of a Nazi Spy"* leaves off.

No greater tribute could be paid to "Mamlock" than that it has been banned by the British Board of Film Censors, and what other decision could be expected from those aged gentlemen so lacking in culture, imagination and sense of civil decency?

"Mamlock" raises the cinema to its proper status—the status of an art form capable of interpreting the greatest events of contemporary history, truthfully, objectively and with a profound emotional appeal. *"Mamlock"* is the real story of Germany today. I say the *real* story because it is not just the racial persecutions, the terror and the war preparation, but the ceaseless underground fight of millions of ordinary decent German men and women against Fascism. And that is something that *"Confessions"* forgot.

The story of the film takes in a wide cross-section of the German scene. The chief character is Mamlock, a brilliant surgeon, a Jew, a liberal in thought, but resenting his son's Communist activities. In short, a very recognisable type of scientist who is "above the battle" in politics. When the Nazis seize power, Mamlock is removed from his position in the hospital and dragged through the streets with the word "Jude" painted on his coat. This sequence alone will live long in the memory of those who have seen it. The full horror and bestiality of the Nazi racial policy has never been more movingly demonstrated than in this episode of the dignified man of science being dragged along by Nazi toughs drawn from the dregs of the city.

As soon as Hitler seizes power the Socialists, Communists, Trade Unionists and other opponents of the regime go underground to continue the struggle, and much of the film is devoted to their methods, full of courage and daring. Leaflets are scattered from roof-tops, pamphlets and books are printed on secret presses, imprisoned leaders rescued from gaol. In all the work Mamlock's son is prominent, but eventually he is trapped by the police outside the hospital where his father lies, broken in health. The streets are lined with armed storm troopers, but the silent crowds of people open up to allow the boy through and immediately close again. The storm

(*Continued on page* 55)

IMPRISONED BY THE NAZIS

A.C.T. members Jack Whitehead and Bill Allan, were engaged recently for a job in Austria, Greater Germany. After they had been away some while the news trickled through that they were under preventive arrest. They were detained for a month and might still be there today but for very persistent questions asked in the House of Commons at the instigation of A.C.T. by Mr. R. Sorensen, M.P., and Lieut.-Commdr. Fletcher, M.P. In reply to one of these questions an assurance was given that our members "were comfortable, were being treated with every consideration, and that they possess and can use private funds." Our members have now returned to this country and we find the facts somewhat different.

They were informed that all the necessary permissions had been granted for the work they had to do, which was shooting backgrounds. On April 23rd, after they had been on the job about four weeks, they were called into the Manager's Office in the hotel at Admont at which they were staying and were informed the police wished to interview them. They were taken from there to the local police station and further interrogated. Their passports were taken from them, and from the director in charge of the job all his documents, together with working permits, etc. The Commissar of the Gestapo said that the permits were insufficient to cover operations in that area. They were then all taken by car to Liezen Gaol some 15 miles away and put into the cells for the evening, their money being taken from them. (It will be noted that this is directly contrary to the information given in the House of Commons). They were kept under verminous conditions until the following day at 5.30 p.m., when they were all bundled into a patrol van and driven the 250-odd miles to Graz. When they arrived there they were subjected to further examination, all keys and what remained of their possessions taken from them, and they were put into the cells. The next morning finger-prints, photographs and all particulars were taken. Each member of the unit was kept in solitary confinement until the following Friday (April 28th), when they were taken down to be interviewed by the Commissar who was accompanied by an interpreter from Berlin who took down a statement. At the same time an accusation was made that drinks had been bought for two soldiers and that one of our members had photographed a station near Admont with a still camera. After this examination they were returned to the cells and told that they would be allowed ten cigarettes a day (until then they had been unable to smoke). Reading matter was requested but was refused. After a further week's solitary confinement they were further interrogated by the Commissar and one of our members was accused of being a British military officer and his denials were merely met by the statement that definite particulars had been obtained which proved this allegation beyond a doubt! A further ten days solitary confinement followed, after which there was another visit to the Commissar who promised them release about the middle of the following week. Actually release came a day or two earlier, presumably as a result of the questions asked in the House of Commons. During the whole of the month's detention our members were not visited or communicated with by the British Consul or his representative.

Before leaving Vienna after release one of our members visited the British Consul to enquire the reasons for his imprisonment. He confirmed what had already been stated, namely that the reasons for their arrest were: (1) conversing with the military and (2) photographing objects of military importance.

Needless to say, great mental and physical strain was undergone by our members. They were imprisoned alone, in a country not particularly friendly to our own, and in the midst of an international situation when war might have broken out at any moment. To be deprived of cigarettes, papers and books, and unable to converse even with the warders, and to spend the whole of the day worrying about one's wife and children, must have been a fearful experience. We understand the food was so bad that they lived entirely on sour bread and water the whole of the time. One of them lost 28 lbs. in weight before he was released.

Although the German authorities never brought a direct charge against them, the treatment they received was in no way distinguishable from that of an ordinary criminal.

We feel this experience of our two members should be a lesson to any others who are invited to go on location in Middle Europe. The strictest precautions should be taken, and we suggest that before any such trips are made, A.C.T. be communicated with.

ORIENTAL ARTISTES ORGANISE

It was my privilege to attend, on behalf of our Association, the first General Meeting of the newly-formed Oriental Film Artistes' Union. A considerable number of Indian and Arab artistes have already been organised by the new Union.

Representatives of other Unions in the film industry were also present, and the dominant note in the discussion that followed the Secretary's report was that of the necessity for unity between all film workers, white and coloured.

Speeches were made in Hindi, Bengali, Arabic and English. (The one word I could distinguish in every contribution was "Union"—and indeed what more fitting word to cut across the artificial barriers of race, creed and language could be found in these troublous days!)

A resolution expressing the general policy of the Union—to fight for improved conditions and for the breaking down of divisions between Oriental film employees and their fellow-workers—was unanimously adopted.

"East is east and West is west——" Kipling was hopelessly wrong. Organised trade unionists are demonstrating practically, all over the world, that the twain can and must meet, on the common ground of their united struggle for the elementary rights of a decent standard of life.

R.B.B.

AFFILIATION TO LABOUR PARTY

AT its Annual General Meeting on April 16th, 1939, The Association of Cine-Technicians decided to take a ballot of the membership as to whether affiliation should be made to the Labour Party. This ballot will be taken shortly. A 60% vote in favour is necessary for affiliaton to be made. For the benefit of those readers not present at the Annual General Meeting, we present the points made for and against the motion. It must be remembered that although the Association would affiliate as such, no individual member would be committed politically by affiliation. Every member is free to pay the political levy or not, as he wishes.

SIDNEY COLE argues "YES"

The Labour Party is the political expression of the Trade Unions. The early Trade Unions found that industrial victories needed political safeguards in the House of Commons, if the gains were to be maintained. That need still exists. And only the Labour Party supplies it.

Everything that we strive for in our Union is included in the programme of the Labour Party—Holidays with Pay, Fair Wages, Shorter Hours, Compensation, Recognition of Unionism. Our interests as Trade Unionists are the Party's declared object. This is not true of either the Conservative or Liberal parties.

In practice, whenever our Association has wanted matters raised on its behalf in the House of Commons, it has turned naturally to Labour members, and help has always been generously given. It's up to us to support the Party that has supported us.

Livelihood and happiness for us who live and work in Great Britain depend on the maintenance of world peace. "Appeasement" is a self-confessed failure. The Government has now been forced by public opinion into a belated admission that peace depends on the policy urged by the Labour Party, that is, a firm Peace Front of our country, France, and the Soviet Union, against aggressor powers. Belief in this policy was voted almost unanimously at A.C.T's. Annual Meeting. The Labour Party can be trusted to carry through such a policy when in power.

The Labour Party wants planned control of the national economy. Lack of planning and unrestricted speculation in the film industry have led to extravagant waste and heavy unemployment, as we know only too well. Why? Because our industry, like all others, is based only on the scramble for private profit. The Labour Party wants to get rid of this principle and put in its place Service to the Community. The most important thing is to ensure that we all have a job and enough to eat. To the Labour Party our industry, like all others, is first of all a problem of human lives and happiness, not of balance sheets and profits.

The Labour Party, in brief, stands for all the things we have been advocating and fighting for in our Association. For us, as men and women who earn our living by our skill of hand and brain, who want peace, a job, acknowledgment of our skill, a home, education for our children, and justice for our fellows, the Labour Party is

OUR PARTY

VOTE FOR AFFILIATION

J. NEILL-BROWN argues "NO"

A.C.T. has frequently sought the assistance of Members of Parliament and in the main the M.P's. have been of the Labour Party. This Oppositions has the general backing of and is the advocate in the Commons for the Trade Unions. As we are a Trade Union and have had the full support of Labour M.P's., it therefore seems natural to conclude that A.C.T. should affiliate to the Labour Party. Which is not quite the logical conclusion it appears to be.

We must remember that it suits the books of any opposition to embarrass the ruling party with questions in the House, and that in consequence the Labour M.P's. have only done what Conservatives would do if the party position were reversed.

One of the best speeches in support of the British film technicians during the Films Bill debates was by a Conservative member, who also helped this union in raising a certain matter privately with the Minister of Labour, from whom we got a reply just as effective as when the same question was raised publicly in the House by a Socialist.

I wish to lay emphasis on the non-political character of our union and the non-political basis on which it has been built up. It is not and should not be regarded as a free platform for the spreading of any propaganda for any party whatsoever, and those who wish to "talk politics" should use the appropriate channels. I regard it as an impertinence that anyone should use the organisation of this union to influence the vote of even one single member, since it was not set up for that purpose.

As our A.C.T. constitution stands at the moment, there is ample room for all opinions; the non-political character of the Union has served the needs of its mixed membership excellently. It would be a great pity to introduce an element which might well prove to be a disrupting force.

What can the Labour Party give you other than seeming to flatter the vanity of a few people who already swear allegiance to it individually? As trade unionists we are aiming at the same goal as all other trade unionists. It is our duty to support and encourage our fellow workers in every way possible and we do that through the T.U.C. The Labour Party does not necessarily have the support of all wage-earners.

We stand today stronger than ever in our history. Bigger and better things will happen yet, but only our constant unity will help us to attain the best possible. Surely the higher wisdom is to preserve the excellent unity we have rather than alienate the political sympathies of people who may interpret this action as a subtle lever to assist a party whose general policy is not theirs.

Do not be misled by the screaming of the "Left." Maintain your own independence and

VOTE AGAINST AFFILIATION

THE EDITORS COMMENT ON

WHAT YOU THOUGHT ABOUT US

Results of the *Cine-Technician* Questionnaire

WELL, most of you thought nice things about us. 63% of you were sure we were "good." 24% cautiously said "fair," 13% risked their critical reputations with "excellent," and nobody—we repeat, *nobody*—said "bad" or "lousy." It seems that 77% of you keep your copies—we commend your example to the rest, who "pass their copy on." Keep them, friends, and encourage the recipients to buy their own copies. The more readers we have, the more able will we be to cope with your suggestions.

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Some of those suggestions we've adopted already. The demand for "more A.C.T. personalities and biographies," for example, has led to the new feature, "*Close-Ups.*" Frank Sainsbury, who has just joined the editorial committee, is in charge of it and you will agree has given it a grand start. Any criticisms of, comments on, or suggestions for, "*Close-Ups*" should be addressed to him: *The Cine-Technician*, 145 Wardour Street, W.1.

. . . . . .

"News from the various studios and laboratories" depends entirely on their co-operation. The laboratories have promised to make a drive for this and have set up a Journal Committee of their own to work with the Editors. The Laboratory Committee is appointing a press agent and asking each laboratory to appoint someone to collect information and contributions. Studio and other branches should follow. There's not much happening in the studios, unfortunately, but A.R.F.P. for example, might let us have material about documentary workers. Tell us the name of the member you've appointed and we'll tell him when to send in material for each issue. We endorse one comment—"not gossip and poor humour."

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Most criticism was levelled at Pigswill's Page. In justice to the ruffled and anonymous Pigswill and Pog themselves, a comic page is perhaps the most difficult of all features to produce. We have all been conscious of that. However, we've tried again. A cartoon commentary now replaces Pigswill's previous contribution. Let us hear your reactions.

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"More correspondence and controversy" were asked for. That, too, is very much a matter for you. Write to us when you disagree or have a point of view to express. We can't write letters to ourselves (at least, we can, but that's not the point). Anyhow, we're starting in this issue a technical Query and Answer feature (on page 56) and we want you to help make it really good and interesting. Send in your own queries. Watch those that appear and let's have your answers, too.

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"Encourage everyone with an idea to air it" said another reader. Well, we're doing our best. Ideas are welcomed from everybody. We can't guarantee in advance to *like* your idea, obviously, but don't let that put you off. Come again. The more material you send in, the more eager you are to co-operate, the better *Cine-Technician* we can produce.

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Technical abstracts and technical articles ranked first for a majority of readers, a tribute to our many contributors and to the willing co-operation of firms such as Kodak's, Western-Electric and Vinten's and others in supplying us with research results and data of new equipment.

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Several requests were made for features we already give you—the latest inventions, television, documentaries, sub-standard, etc. We take the remarks to show approval of our efforts in these directions and a desire to see them represented even more effectively. We would ask those interested to keep note of the subjects they are interested in and let us have contributions on anything they are afraid we may overlook.

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The request for some "fine, sensitive writing" is hereby referred to all intending contributors. We don't mind knocking articles that have valuable material into shape, but a dictionary and a grammar primer, we feel in our more bitter moments, might be used more frequently. "The style," if you will pardon our being trite for a moment, "is the man." We cannot believe there are no fine, sensitive men among our readers. Let's hear from you, stylists!

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As for "Editorial Comments," which were asked for, frankly we're not sure that you want them. This report on the Questionnaire gives us a chance to talk directly to our readers on a specific point. Whether you want to hear from us in each issue, we're doubtful, and would like to have your opinion. In fact, as far as we're concerned, one of the chief results of the Questionnaire has been to suggest to us even more questions that we'd like to ask you.

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There was a slight majority in favour of an index to each issue. But the editors rather agree with the reader who commented "Why waste valuable space?" We promise, however, to keep the possibility in mind.

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There were many other suggestions and criticisms made, evidence of a keen and interested reading of *The Cine-Technician*. As we've said, we've done our best according to the possibilities to meet them; and several we haven't mentioned have been noted and acted upon. We are grateful for your co-operation and would only urge, once more, that this is *your* journal and you can do much constructively to maintain and improve it.

The Editors

AUDIENCES GET TOGETHER

CEDRIC BELFRAGE told a recent meeting of the Left Book Club Film Workers' Group about the new Association of Film Audiences just formed in the U.S.A. Belfrage, who recently wrote a brilliant article for *The Cine-Technician* on Trade Unionism in Hollywood, has been doing journalism in Hollywood for some time past and is now in England for a short stay, working on a script for Gainsborough.

The Association of Film Audiences, says Belfrage, represents the wakening into activity of the democratic elements in the audience, corresponding with a similar awakening in the studios of the film workers, and their formation of unions. Up till now it has been only the fascist and reactionary groups that have been vocal and have attempted to force their point of view on the producers. The German consul at Los Angeles has often demanded alterations in certain films—*"The Three Comrades"* and *"The Road Back"*—for instance, and the Italian consul is said to have been well in on the making of *"Idiot's Delight."* Now that producers, following the loss of German and Italian markets, are ignoring their protests and going ahead with more or less anti-fascist films, these gentry are reported to be closing their offices. It is difficult to over-estimate the great effect audience-pressure has on the studios. The Legion of Decency, that hide-bound body of catholic reactionaries, by their constant and vociferous demands succeeded in getting the Catholic Joe Breen appointed to the Hays Office, an autocratic body that has almost absolute power over a film from script right down to the stills exhibited in front of the theatre.

Now, whilst the catholics and other reactionary forces have been thus active, the democrats have been ignoring their chances. The influence of the consumer in industry, once he organises, is shown by the tremendous effect of the Consumers' Union and consumers' research in the U.S.A. Though it is true to say that the Hollywood studios represent the voice of Wall Street, they are in the business for the chief reason of making money. Sam Goldwyn would make a film of Marx's Das Kapital if he thought enough people would want to see it to make it pay. So it is up to the democratic groups in the film audience—not least in England, which is an extremely important market for Hollywood—to make their feelings felt and to demand that what is shown on the screen should be in line with their own democratic outlook. After all, the film is in its very nature a democratic form of expression—it is the result of collective work and it depends entirely for its success on a collective audience.

Well, the A.F.A. has been formed to meet this need. In the U.S.A. 65 national organisations are affiliated to it, including Trade Unions, Y.M.C.A's. and Church groups; it issues reviews of films and when necessary organises letters of protest to studios and the people concerned, its general line being to "defend democracy on the screen." Moreover, go-ahead producers like Warner's will find in it invaluable nation-wide free advertising for such films as *"Confessions of a Nazi Spy"* and *"Juarez"* and so come to depend on its good-will more and more. Belfrage ended by urging the formation in England of a branch of the A.F.A. and the meeting unanimously agreed that the possibility should be seriously examined.

DOCUMENTARY OVER EUROPE

THE LONDON FILM INSTITUTE SOCIETY recently presented one of the most interesting film shows that has yet been available to technicians. The programme, for which Miss Olwen Vaughan was mainly responsible, consisted of eight documentaries, six of them foreign productions.

Belgium's contribution *"Flanders"* was an average production, not outstanding in any respect except perhaps for a good panning shot from the high tower of the Flemish nationalist monument at Dixmude. The English commentary was expressionless, and did not compare with that of the Czechoslovakian *"Our Country,"* produced and directed by Jiri Weiss, who is at present in this country. This commentary was spoken by at least four voices and although Czech was incomprehensible to most of the audience in the Gaumont-British theatre, nevertheless the inflections of those voices and the extremely good direction enabled us to follow with ease this depiction of Czech national life. This film was formerly called "Twenty Years of Liberty," and was originally four reels, being cut down after the Munich Agreement to two reels. I understand that an effort is being made to screen it in this country in its original form. The photography by Vaclar Hamro was outstanding.

Mr. Alberto Cavalcanti, in his introductory remarks, stressed the fact that the censoring of the German *"Wildwasser"* was in no way a retaliation for that of the Czech film, but was due solely to the necessity of cutting down the running time for that evening's performance. It did not appear to suffer from this scissoring and the audience appeared to have had quite enough of the adventures of a somewhat glamourised group of young women and men.

Mr. Cavalcanti regretted that he was unable to round off his introduction with the customary joke as the only notable occurrence he could recall was that Len Lye had successfully undergone an operation for appendicitis. We can only hope that this operation will not form the basis of one of Mr. Lye's phantasmagoric colour offerings, which were represented in this programme by *"Colour Flight"* for Imperial Airways. The G.P.O. film, *"Spare Time,"* which dealt with the use of spare time in various parts of the country, possessed a nice touch in the synchronising of football match noises with the filling in of pool coupons. Humphrey Jennings directed.

The Danish production, *"Et Hjorne af Sjaelland"* was quite good average entertainment and had some interesting cross-cuts between church spires and radio masts. Its director, Theodor Christensen, is now visiting over here.

"Les Neiges de France," made for the New York World' Fair, showed ski-ing activities in France. Winter sports appear to have a more general appeal than in Switzerland, and do not seem the prerogative of the fortunate few. The credits included a union acknowledgment.

Switzerland itself contributed *"Spiel der Wellen,"* a Technicolor cartoon publicising Swiss radio, which was extremely well done.

It is, of course, impossible to make a comparative survey of each country's work from single pictures, but together they effectively dispelled the idea, if it existed, that the continental film makers have not a good grasp of the essentials of documentary production.

T. S. Lyndon-Haynes

RECENT PUBLICATIONS

Photographic Chemical and Sclutions, by J. T. Crabtree and G. E. Matthews. Chapman & Hall. 21/-.

This book should be in the possession of all solutions departments and of those who have to prepare any photographic solution. The names of the authors are a sufficient warrant of authority, and the book is written throughout with that peculiar lucidity one associates with the best American technical literature. To be able to prepare correctly every solution used in processing, a knowledge of the chemicals used and the reactions involved during mixing is essential. With this knowledge in his possession, the mixer can proceed with confidence to make up any bath, and when, as occasionally happens, the results are *not* as expected, he will know more exactly what is likely to be wrong. A study of this book will supply the necessary information, whether it is desired to mix one gallon or 1,000 gallons. The latest approved mechanical mixers are dealt with; the best materials for construction of tanks, pipes, etc.; temperature measurement and control, with details of some rather more exact methods than are in use in this country; effect of water supply; handling solutions at high temperatures. These and many other problems are dealt with and the most practical methods of working indicated.

The appendix contains some very interesting formulæ, a table of solubilities, and a conversion table of Farhenheit, Centigrade, and Réaumr degrees. Elsewhere in the book will be found the best method of conversion from metric to avoirdupois and vice-versa. Perhaps the most interesting chapters are those dealing with Apparatus and Materials for Construction. One gathers from the latter that the best material for tanks, pipes, etc., is a stainless steel alloy, containing approximately 18% chromium, 8% nickel and 2—4% molybdenum. Altogether a most interesting volume.

E.T.

Electro-Acoustics, by Prof. Dr. Erwin Meyer. G. Bell and Sons. 10/- net.

This book is based on a series of five lectures delivered by the author before the Institution of Electrical Engineers in the autumn of 1937, and whilst of necessity brief, it contains information not ordinarily found in books of a similar nature.

The author opens with considerations of the different types of sound waves, their physical properties and acoustical terms. Supersonic sound and its application to engineering is discussed, followed by a description of devices for the measurement of sound intensity and vibrations in buildings. The chapter on Microphones and Loud Speakers is restricted to the carbon and condenser types of microphones and the effects of different shapes of baffles for loud speakers are considered. His description of the problems and their solution arising in connection with large open air Public Address installations should be interesting to engineers engaged in that sphere.

The author's treatment of sound recording is limited to recording on disc and steel tape, a reference being made to the Buckmann-Meyer method of determining the characteristic of disc cutting heads, and concludes with a chapter on Architectural Acoustics.

W. BIRD.

Phctography, by C. B. Neblette, F.R.P.S. Chapman & Hall. 30/-.

This book, which has for many years been regarded as a standard work on photography, was first published in 1927. A second edition appeared three years later, and now, as the author points out in his preface, a third edition is necessary owing to the tremendous strides which have been made since then.

The form remains the same. Starting with a short history of photographic research and equipment, it deals with every aspect of theory and practice from the emulsion of the negative to making of the final print, and ends with several chapters on various colour processes. The new material has been added to already existing sections and where necessary the whole has been re-edited. One chapter at least—that on exposure—has been entirely rewritten, because of the almost universal use of exposnre meters of one kind or another. The chapter on sensitometry is, I think, the best introduction to this complicated subject which I have so far come across; I strongly recommend all photographers, who are still rather vagne on this point, to read it thoroughly.

The work, as a whole, can be regarded as a handbook; more advanced and elaborate than the elementary books for beginners, and more compact and readable than an encyclopedia intended only for reference. The author presupposes a certain knowledge of physics and photochemistry on the part of his readers, but not so much that it is not well within the scope of the average film technician. For those who can afford it this book would be a useful addition to their library.

E. A. GRAHAM.

The Cameron Books on Sound Motion Picture Production

Messrs. Crosby Lockwood & Son are now agents in this country for the Cameron books which for the past twenty years have been recognised as a standard authority on motion picture production. The writer, James R. Cameron, is a member of the S.M.P.E. and the volumes now handled by Crosby Lockwood include **"Sound Motion Picture Recording—Reproduction"** (3rd Edition, 35/–); **"Sound Pictures and Trouble Shooter's Manual"** (35/-); **"Servicing Sound Equipment"** (4th Edition, 35/-).

We Saw It Happen, by 13 Correspondents of *"The New York Times."* Harrap. 8/6 net.

Eight per cent of this book deals with films It claims in thirty pages to tell the truth about the film industry and Hollywood! Frank Nugent, film editor of *"The New York Times,"* and Douglas W. Churchill, its Hollywood correspondent, are the brave journalists who make the attempt. To laymen, their chapter will be interesting and in parts sensational—to the technician there will be little new. In fact, I found the rest of the book much more absorbing.

Frank Nugent opens up by describing the press machine of the movie magnates, and Churchill states that the newspaper man covering the town must ride or be ridden. They write what they are told to write, and to the discredit of the profession, he says, not more than a dozen newspapers have given support to their representa-

tives who have dared to do otherwise. Details are given of the trade paper which influences technicians to advertise by stating that however good their work it will not be mentioned unless they do so.

One of the best anecdotes told is that of a well-known premiere theatre which has two microphones—a live one for the current stars and a dead mike for the falling ones who still fancy such little amenities. A temporary technical breakdown is the alibi if there ever should be a kick-back.

The other chapters present a picture of the world in varying aspects written with the gusto generally associated with American journalists. "The British Way" is a vivid contribution, and will cause deep thought to all but too squeamish Englishmen, while "The Case that Shook the World" gives in the best chapter in the book a most brilliant analysis of that grave miscarriage of justice, the Sacco and Vanzetti case.

We could do with more of the good, straight, honest, hard-hitting typified in this book. Not only in literature but on the screen. Nugent and Churchill will tell you how, regretfully, there is little chance of getting it as far as the latter is concerned. "Still heedful about the penalties of being offensive, pictures are not deal honestly with industrial or political themes . . . . I returned from Bedlam marvelling at its skill, amazed at its resources, more than ever certain that Hollywood has everything but courage . . . It remains the only lasting mythical kingdom of the modern world."

G. H. ELVIN

Talking Pictures, *how they are made, how to appreciate them,* by Barrett C. Kiesling. E. & F. N. Spon Ltd. 8/6.

This book starts off under a disadvantage, in as much as it is written (or was) by the head of a "certain company's publicity department." Apart from that and one or two other factors, this is an interesting book, although the reader will probably feel that he is being persuaded, against his better judgment, to "Buy Hollywood," for never have I read such a plausible "boost" story before. Mr. Kiesling's language is inclined to become flowery at times, but after all we are educated up to the standard of a certain travelogue series, so this language is not too strange. The book is full of good and interesting illustrations (*Metro-Goldwyn-Mayer*) and is a very thorough survey of the Talking Film as a business and as an art.

For your information: "A photoplay is a mosaic of many different arts and vocations, to be exact, 276" (which, according to Mr. Kiesling's appendix, includes:—Aviator, Baker, Captain of Sailing and Steam Ship, Butcher, Charwoman, Company Manager, Dentist, Dietitian, Dishwasher, Farmer, Gardener, Lawyer, Pedicurist, Soda Fountain Operator, Tractor Operator, Pot-washers, and a most comprehensive list of others).

Further, "Today, although the screen is less than 50 years old, it has practically completed the process of purging itself of those insincere persons who saw in it only a quick way to easily gained money." But the author doesn't state whether this includes Great Britain.

Alibi: "When searching for reasons why the studios change stories, another important element enters. It should be kept in mind that the screen has voluntarily bound itself to complete internal self-regulation of moral and aesthetic factors." He is at least most polite about Censorship.

Here is an insinuation that Shakespeare was wasting his time. "Romeo and Juliet is painted on too broad a canvas for efficient stage use." Dear Old Bill was just a little premature, though I can't help feeling that he had a notion that "LEO" was coming.

In defence of why the story is changed he states, "Too many people criticise a motion picture without complete data. They may know the novel and the stage-play, but far too many do not know the photo-play. They do not understand why and how it differs from the novel and the stage-play. Therefore, to those familiar with the screen, the photo-play criticism of misinformed people seems absurd." So what! Either it is the same or it is different—at least that is my opinion.

"The studios are to be commended, for they have not been provincial or narrow in their story search. They have taken prodigally from the greatest literature of all the world and all time." Do you suppose he is being ironical?

"Every story is a dream which some clever man or woman draws from his imagination and puts on paper. The 'story scouts' of a big modern motion picture studio might very well be called 'dream hunters,' for they roam all over the world searching for stories." What I want to know is, who then is it that finds some of these bad dreams that we see?

And in conclusion: "Hollywood depends upon stories. No studio could continue its work without ample and varied supply of stories from which to draw. These, the results of man's most fanciful dreams and most inspired visions, must be discovered and adjusted to the need of the studios. Dreams! Remember that word. In a sense novels are merely some man's dreams, put into written words. Plays are dreams transformed into actors walking to and fro across the physical stage of a theatre." (Did you ever see a dream walking?) "Motion pictures are dreams transmitted to a metalised screen" (I'll have you know the screen is fabric, sir) "there to be seen by more millions than can be reached by almost any other means of communication. All phases of literary art are closely linked with dreams which spring up like the Phoenix in the mind of some man or woman. All stories are integral in the warp and woof of the photo-play fabric, and they provide the reply to Hollywood's perennial request, DREAMS WANTED."

It is with these words that we say "Farewell" to Sunny Hollywood, the Playground of the Playboys of the Golden West . . . . Words fail me, so I have no alternative but to sign myself . . . .

POG.

Seventy Years of Trade Unionism. Trades Union Congress. 2/6.

This excellent book was originally published for presentation to delegates to the Blackpool Congress and is now offered at a special price to members of affiliated unions. It contains valuable information hitherto unpublished and is especially useful to younger trade unionists who wish to know more about Union history, methods and achievements. A.C.T., of course, finds a place in the volume and actually supplied some of the photographs. Copies may be obtained from the A.C.T. office and all members are strongly urged to take advantage of the offer of such a worth-while volume while copies are still available.

TECHNICAL ABSTRACTS

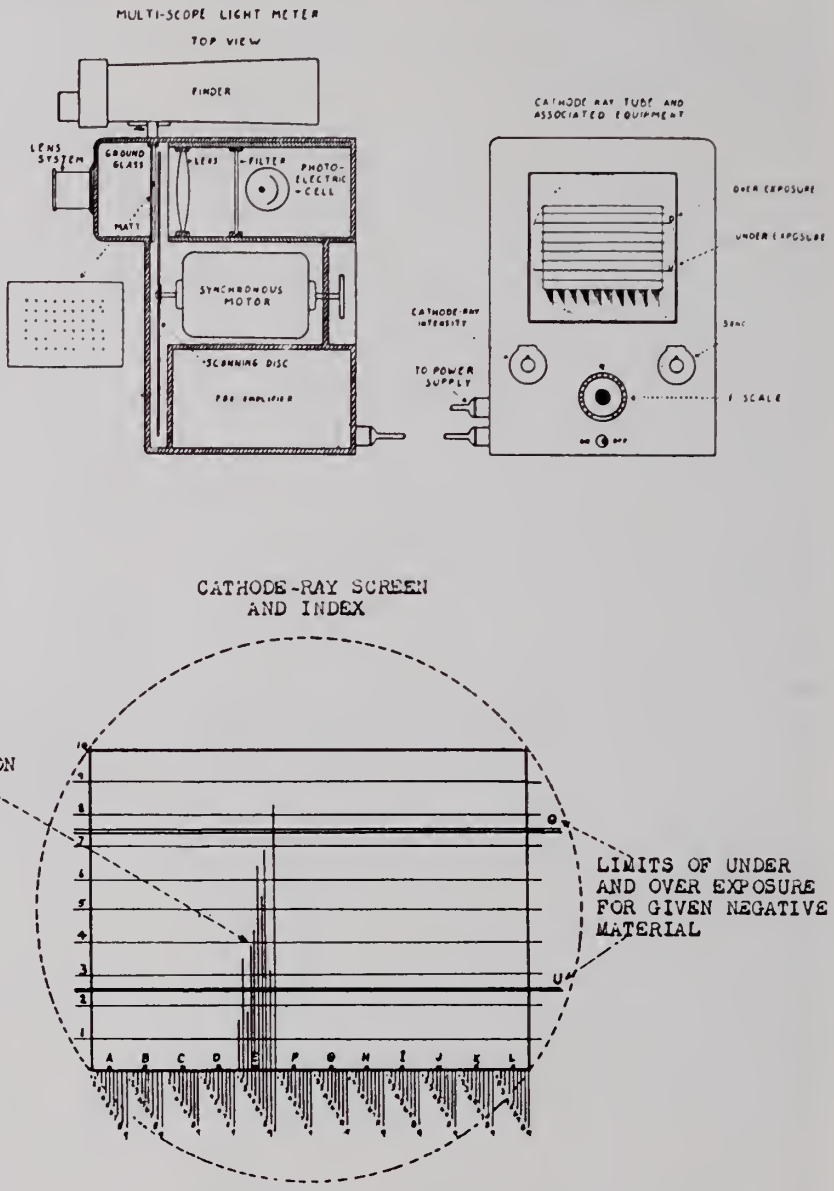
NEW TYPE OF LIGHT METER

(American Cinematographer)

The article gives a full description of a light meter designed by C. S. Franklin of Hollywood. It has taken this engineer 2½ years to get recognition for his invention

The meter reads, by direct measurement, the lighting contrast of a given subject, and can be matched to the characteristics of any of the modern cine stocks. A lens (the actual camera lens can be used if desired) gathers the light and forms an image on a ground glass screen. Placed directly in front of the screen is a thin opaque matte which is perforated with a number of holes arranged in a predetermined pattern. The ground glass is scanned by a disc revolved by a synchronous motor. The holes of the disc are arranged so that each hole in the matte is individually scanned. A condenser lens concentrates the light passing through the disc on to a photo-cell. The current generated in the cell is passed through an amplifier on to a Cathode Ray Oscillograph, which is calibrated for under-exposure, normal and over-exposure.

A.L.



GLARE GLASS.—Dr. Katherine B. Blodgett *(American Cinematographer)*

Glare caused by reflected light has been eliminated by a new General Electric process. A thin chemical film is applied to the surface which nullifies or neutralises rebounding light rays. The refractive index of the glass is determined, after which the process consists of attaching to the glass a very thin transparent film of approximately $4/10^6$ of an inch or exactly one quarter of the wavelength of light. As light falls upon the film, rays are reflected from both the upper and lower surfaces. With the film exactly a quarter wavelength in thickness, those rays coming from the outer or upper surface are equal in intensity and opposite in phase to those rays reflected from the lower surface. These counteract one another and no light is reflected.

Dr. Katherine B. Blodgett claims that the process when applied to lenses will eliminate the 23–25% loss of light now prevented from reaching the negative.

T. S. L-H.

NEW UNI-DIRECTIONAL MICROPHONE

(American Cinematographer)

R.C.A. has recently developed a new uni-directional microphone with great sensitivity on its live side. About one half the size of its immediate predecessor, it is claimed to be ideally suited for use in auditoriums with broadcast or P.A. systems since it eliminates audience noises and echoes. It would appear to be particularly useful in small sets as it is claimed to function well in corners or against walls.

T. S. L-H.

METHODS OF USING AND CO-ORDINATING PHOTO-ELECTRIC EXPOSURE METERS AT 20th CENTURY-FOX STUDIOS.—Report by D. B. Clark to the 1939 S.M.P.E. Convention.

Consistency in negative printing values is one of the most desirable factors in modern cinematography. Photo-electric light-measuring devices can help the cinematographer maintain such consistency to a far greater degree than is possible otherwise.

Not only tests, but actual production, has shown that with the proper use of these instruments, the entire output of the studio's camera staff can be so co-ordinated that almost without regard to the photographic conditions prevailing on the set, all negative will print correctly within a range of three or four printer-light adjustments.

To make this co-ordination possible, several requirements must be recognised. Among these are dominant and by no means completely fulfilled demand for photo-cell meters of unfailing consistency—i.e., meters that are not subject to error from photo-cell fatigue, changes in humidity or temperature, and the like, and are sufficiently uniform that all the studio's meters may be expected to give uniform readings under any given conditions.

A.L.

The British Kinematograph Society has recently formed a Central Technical Committee to consolidate the work of its various *ad hoc* technical committees. The new Central Committee will consider requests for investigations and if in agreement will allot the investigation to a sub-committee. Matters under consideration currently are the measurement of brightness of the kinema screen (we hope the Committee will note the authoritative article from Kodak's on this subject in *The Cine-Technician* for December, 1936); the assessing of light output of sub-standard projectors; the compilation of a technical glossary; and the present position of kinema television.

THE CINE-TECHNICIAN

SIX ISSUES A YEAR (January, March, May, July, September, November).

Associate Editors:

Max Anderson, Sidney Cole, George H. Elvin, Kenneth Gordon, Frank Sainsbury.

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NEW 16-mm. DEVELOPING MACHINE.—J. M. Blaney, Cinaudagraph Corp. (*S.M.P.E. Journal*).

This new developing machine is rated at 150 feet per minute, and at that speed, 3½ minutes is allowed for development, 3½ minutes for fixing and 7 minutes for washing. Sixteen minutes allows low temperature drying with consequent improvement in quality.

The machine is 20 feet long, 28 inches wide, and 74 inches high, excluding air-ducts which may enter at top or bottom. An interesting feature of the machine is the sprockets which are used more to regulate the feed than as positive drivers: each sprocket governs a line of 16 rollers which provide a semi-friction drive with the aid of a weighted jockey roller, mounted in a special manner, termed a "compensator." The makers claim that a tension of 7 ozs. is not exceeded on any strand. The pitch of the sprocket teeth is designed to fit the wet expanded film, consequently a large number of teeth are in engagement at a time minimizing sprocket hole damage, "picking," etc.

Cascade washing is employed and water consumption is very low, 12–15 gallons per minute.

The film rollers differ from the conventional. It is common to provide lands corresponding to the perforated area but the track occupies one side and it was found that side scratching occurred. The cinaudagraph roller is "crowned" and a thin rubber band is stretched over it. In operation the film tends to contact the centre of the roller, as in a normal flat belt drive using crowned pulleys.

A very efficient turbulator forms part of the developer circulation.

E.T.

LIBRARY

Owing to the fact that books of intrinsic value, together with valuable magazines, have apparently been permanently borrowed, it has been decided that all magazines and books that are of real technical value shall in future be kept in the General Secretary's office and only borrowed on request from him.

Further, we would be obliged if any member who has forgotten to return borrowed books or magazines would please do so. This applies particularly to S.M.P.E. Journals, which are of great technical use to members.

In view of the fact that several persons have been in the habit of taking library books and keeping them unreasonable periods, the General Council has decided to levy a fine of threepence per week on all books borrowed for longer than ONE calendar month.

It is hoped that all members will co-operate and when they borrow books they will return them as quickly as possible, so as to make all the latest technical data available to all members. It should be pointed out that there are waiting lists for many of the books in the library.

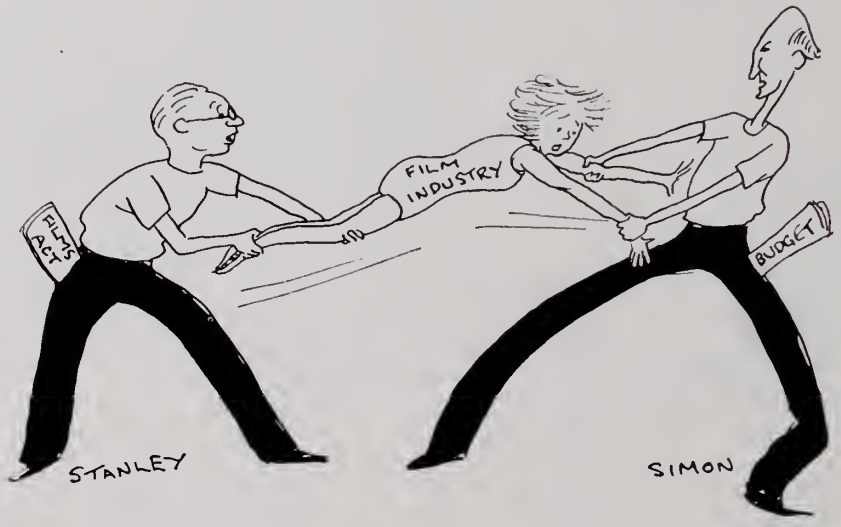
* * *

Holidays with Pay. H.M. Stationery Office. 9d.

This booklet is issued by the Ministry of Labour and is a record of what has already been achieved in obtaining holidays with pay by collective agreements. It summarises the main main provisions commonly contained in such agreements and in addition it gives the texts of some of the principal agreements or of those which include features of special interest.

ITEM 1.– CONFESSIONS OF A PIGSWILL SPY OR A DAY IN THE LIFE OF A FILMS COUNCIL MEMBER:

F.C. MEMBER RISES, AND BEFORE SHAVING, SWEARS HIMSELF TO SECRECY / DONS DISGUISE AND CREEPS TO COUNCIL MEETING / AFTER SECRETLY BUSY DAY / RETURNS HOME, PLEDGES HIMSELF AGAIN, & SO TO BED.



THE GOVERNMENT'S NEW ADAGIO ACT — CINEMATOGRAPH DEPT.

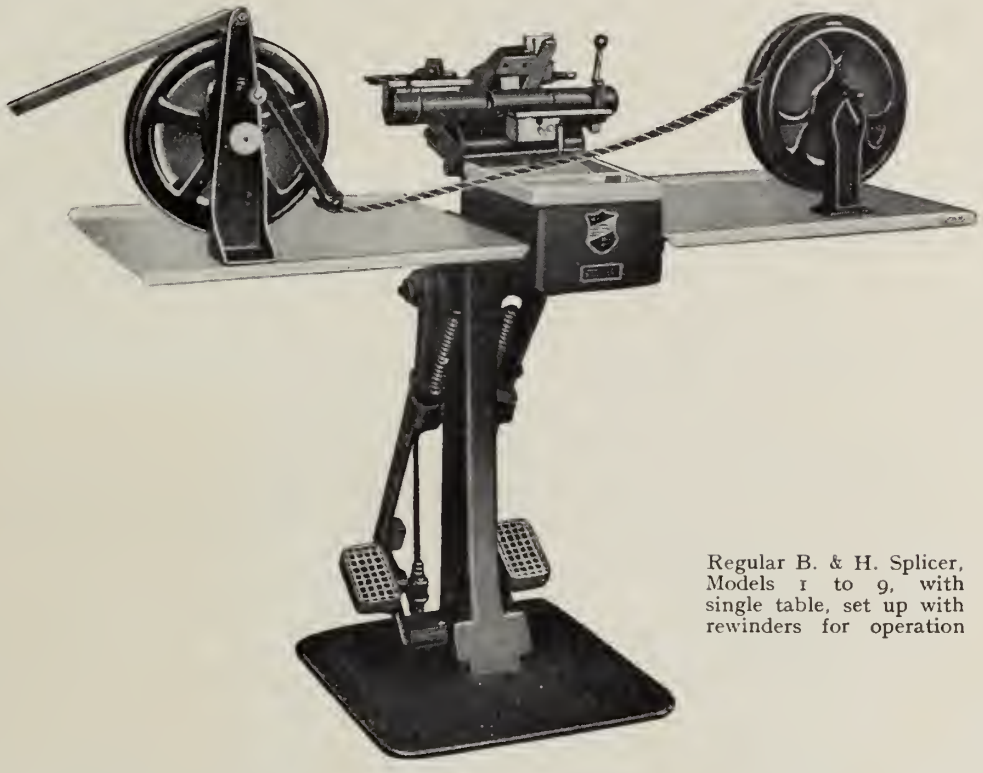
ABOVE: A BUSY SCENE IN A FILM STUDIO. SORRY ITS SO UNINTERESTING BUT DIRECTOR, 1ST CAMERAMAN & ART DIRECTOR ARE NOT ON THE LIST OF RESERVED OCCUPATIONS.

CORRESPONDENCE CORNER

FOLLOWING OUR REMARKS IN THE LAST ISSUE, G.P.O. HAVE REPLIED TO A.C.T. THE ANSWER IS IN THE NEG. OR NOWT— BUT IN FUTURE THEY WILL BE PAID FOR SUNDAY WORK. WELL WE'LL JUST HAVE TO TRY & SUGGEST SOME TOPICS FOR "SUNDAYS ONLY."

BELL & HOWELL'S

STANDARD FILM-SPLICING MACHINES



Regular B. & H. Splicer, Models 1 to 9, with single table, set up with rewinders for operation

BELL & HOWELL Standard Film Splicing Machines splice film quickly and permanently without adversely affecting its flexibility of encroaching upon the picture space. They eliminate definitely appreciable wastes of time and money by very substantially reducing overhead costs and minimising film mutilation, thus insuring accuracy and efficiency in the processing and exhibition of motion picture film. They are indispensable units for the modern laboratory and film exchange.

More than twenty years ago the Bell & Howell Company introduced these splicing machines. Since then, B. & H. Splicers have established themselves as the world's standard and as such are being used today by the largest producers and exchanges, as well as by a great majority of the up-to-date motion picture laboratories, throughout the world.

Operation is conducted at an efficiency increase of from 100 per cent upward over that of any known film splicing practice, with a corresponding degree of improvement in quality of output. Their celerity of operation and nicety of results in making perfect and permanent splices in the film are important factors.

Efficiency, safety, uniformly superior quality, greatly increased output, and cleanliness are distinguishing points of merit of these Splicers. Their interchangeability for negative or positive splicing, to give any desired width of splice, and their special attachments for variable frame line splicing and for splicing of unperforated raw film stock firmly establish their versatility and applicability for film splicing of every nature.

Splices made by means of the B. & H. Splicer leave the film as pliable at the point of splice as at any other, and these splices are automatically located in proper relation to the picture frame lines and perforations. This automatic accuracy eliminates all misframes and prevents other similar evils so long identified with the faulty hand patch. A joined print is perfectly welded in accurate alignment and registration, thereby insuring uninterrupted projection and prolonging the life of the film.

Remarkable and complete as was their original design, B. & H. Splicers have been improved recently as the result of further research and experience, with the result that present models are capable of handling all classes of modern work with a maximum of efficiency and dispatch. The illustration shows how the regular (single table) model appears in use.

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THE JOURNAL OF THE ASSOCIATION OF CINE-TECHNICIANS

THE CINE-TECHNICIAN

9d

NO. 23 1939 SEPTEMBER OCTOBER

THOMAS BAIRD
MAX BRENNER
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THE FILM IN SCOTLAND
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A further selection of Films recently made or still in Production on . . .

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	Photography by.	Film Type
ALEXANDER KORDA		
Thief of Baghdad	Georges Perinol & Osmond Borrodaile	In Technicolor
ALDWYCH PRODUCTIONS		
An Englishman's Home	Mutz Greenbaum & Henry Harris	Plus-X
ASSOCIATED BRITISH PICTURES		
You're Lucky to Me	Derick Williams	Plus-X
On Guard in the Mediterranean	Phil Tonnura	Plus-X
She Couldn't Say No	Claude Friese-Greene	Plus-X
Flying Squad	Walter Harvey	Plus-X
The House of the Arrow	Walter Harvey	Plus-X
BRITISH LION		
All at Sea	Hone Glendinning	Plus-X
EALING STUDIOS (Capad)		
Come on, George!	Ronald Neame	Plus-X
Cheer Boys, Cheer!	Ronald Neame	Plus-X
Return to Yesterday	Ronald Neame	Plus-X

	Photography by	Film Type
G. & S. PRODUCTIONS		
The Arsenal Stadium Mystery	D. Dickinson	Plus-X & Super-X
On the Night of the Fire	Gunther Krompf	Plus-X
A Window in London	Glen McWilliams	Super-X
G.H.W. PRODUCTIONS		
Paul in Rome	Francis Carver	Super-X
GRAFTON FILMS		
The Stars Look Down	Mutz Greenbaum, H. Harris & E Polmer	Plus-X
IRVING ASHER PRODUCTIONS		
Ten Days in Paris	Otto Kanturek	Plus-X
PENNANT PICTURES (GEO. KING)		
Chinese Bungalow	Hone Glendinning	Plus-X
RKO RADIO		
Meet Maxwell Archer	Claude Friese-Greene	Plus-X

	Photography by	Film Type
TWO CITIES FILMS (Paramount)		
Live and Let Live	Bernard Knowles	Plus-X
French Without Tears	Bernard Knowles	Super-X
20th CENTURY PRODUCTIONS		
Frozen Limits	Arthur Crabtree	Super-X
Inspector Hornleigh on Holiday	Jack Cox	Super-X
VOGUE FILMS		
Down Our Alley	Germain Burger	Plus-X
Carol Levis	Bryan Langley	Plus-X
WARNER BROS. FIRST NATIONAL		
Hoots Mon!	Basil Emmott	Super-X
His Brother's Keeper	Basil Emmott	Super-X
Confidential Lady	Basil Emmott	Super-X
Murder Will Out	Basil Emmott	Super-X
The Midas Touch	Basil Emmott	Super-X

AMERICAN PRODUCTIONS

	Photography by	Film Type
COLUMBIA		
The Man They Could Not Hang	Kline	Plus-X
Parents on Trial	Stumar	Plus-X
Coast Guard	Bollard & Barlatier	Super-X & Background-X
Golden Boy	Freund & Musuroca	Plus-X
Good Girls Go to Paris	Freulich	Plus-X
Mr. Smith Goes to Washington	Walker, Stuber & Siegler	Plus-X
A Woman is the Judge	Kline	Super-X
Escape from Alcatraz	Siegler & Pittack	Plus-X
Mounted Police	Meehon	Super-X
Blondie Takes a Vacation	Freulich	Plus-X
GOLDWYN		
Music School	Toland	Plus-X
Real Glory	Mote Eagler & Hollenberger	Plus-X
METRO-GOLDWYN-MAYER		
Ninochka	Daniels	Plus-X
Babes in Arms	June	Plus-X
Thunder Afloat	J. Seitz	Plus-X
Tropical Lady	Folsey	Plus-X
On Borrowed Time	Ruttenberg	Plus-X
Hardy Family	Rosson	Plus-X
Evelyn Prentiss	Daniels	Plus-X
Blackmail	De Vinna & White	Plus-X
Balalaika	Freund	Plus-X
PARAMOUNT		
Leading Citizen	Milner	Plus-X
Home Work	Hollenberger	Plus-X
island of Lost Men	Long	Plus-X
Geronimo	Sharp	Plus-X
Dr. Cyclops	Sharp	In Technicolor
Death of a Champion	Thompson	Plus-X
Our Neighbours—The Carters	Barnes	Plus-X
$1,000 Touch-down	Mellor	Plus-X
Seventeen	Milner	Plus-X
Disputed Passage	Mellor	Plus-X

	Photography by	Film Type
REPUBLIC		
Mob Fury	Morta	Plus-X
Colorado Sunset	E. Miller	Super-X
Stand Up and Sing	Morta	Super-X & Plus-X
All the To-morrows	E Miller	Super-X
Tidal Wave	Morta	Super-X
Fighting Irish	E. Miller	Super-X
R-K-O		
Full Confession	Hunt	Plus-X
Conspiracy	Redman	Plus-X
Day the Bookies Wept	Mackenzie	Plus-X
Career	Redman	Plus-X
Timber Stampede	Wild	Plus-X
Memory of Love	Hunt	Plus-X
Spellbinder	Metty	Plus-X
Bad Lands	Redmon	Plus-X
Nurse Cavell	August & Young	Plus-X
Fifth Avenue Girl	De Grasse	Plus-X
G. Dog	Wild	Plus-X
Girl from Mexico	Mackenzie	Plus-X
Little Mother	De Grosse	Plus-X
Five Who Escaped	Musuroca	Plus-X
The Dove	Hunt	Plus-X
Racketeers of the Range	Wild	Plus-X
ROACH		
Laurel and Hardy Feature	Lloyd	Plus-X
Housekeeping Daughter	Brodine	Plus-X
SELZNICK INTERNATIONAL		
Gone with the Wind	Holler	In Technicolor
Intermezzo	Strodling & Toland	Plus-X
20th CENTURY FOX		
Roughneck	Andriot	Plus-X
Frontier Marshall	C. Clarke	Plus-X
Rains Came	A. Miller	Plus-X
Heaven with a Fence	Cronjager	Plus-X
Drums along the Mohawk	Glennon	In Technicolor
Sherlock Holmes	Shamroy	Plus-X

	Photography by	Film Type
UNIVERSAL		
In Old California	Bayle	Plus-X
Big Town Czar	Bredell	Plus-X
Love of Money	Cortez	Plus-X
Hawaiian Nights	Cortez	Plus-X
Sandy	Robinson	Plus-X
Sun Never Sets	Robinson	Plus-X
Under Pup	Mohr	Plus-X
Modern Cinderella	Mescall	Plus-X
Forgotten Women	Cortez	Plus-X
I Stole a Million	Krasner & Ash	Plus-X
WALTER WANGER		
Winter Carnival	Gerstad & Gilks	Plus-X
Eternally Yours	Gerstad	Plus-X
WARNERS		
On Your Toes	Howe	Plus-X
Dead End Kids in Military School	Todd	Plus-X
Kid Nightingale	Edeson	Plus-X
Career Man	Rosher	Plus-X
Queer Money	Von Trees	Plus-X
Not Wanted	Edeson	Plus-X
Dead or Alive	Todd	Plus-X
Nancy Drew & Hidden Staircase	O'Connell	Plus-X
Return of Dr.-X	Hickox	Plus-X
Elizabeth & Essex	Polito	In Technicolor
Hobby Family	Hickox	Plus-X
INDEPENDENTS		
Everything's on Ice	Metty	Plus-X
They Can't Hang Me	Mortinelli	Plus-X
Miracle of Main Street	Von Enger	Plus-X
Way Down South	Schoenboum	Plus-X
Inside Information	Mortinelli	Plus-X
Man With the Iron Mask	Plonck	Plus-X
Singing Charro	Ash	Plus-X

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THE CINE-TECHNICIAN

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The Association of Cine-Technicians

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Number Twenty-three, Volume Five **SEPTEMBER—OCTOBER, 1939** **Price Ninepence**

WAR

HOW IT AFFECTS FILM TECHNICIANS

WHAT A.C.T. IS DOING

WAR was declared as we were going to press. We consequently delayed publication so that we could make this full report. Readers should bear in mind that all the other contributions were written and type-set prior to the outbreak of war.

NEW ADDRESS

The Association of Cine-Technicians, The A.C.T. Employment Bureau, and *The Cine-Technician* have removed from Wardour Street. Please note their new address:—

9, BROMEFIELD,
STANMORE, MIDDSX.
Tel. EDGWARE 3119

In addition arrangements have been made, through the generosity of Mr. Shaw Jones, for a London address at:—

London Photographic Centre, 59, Shaftesbury Avenue, London, W.1., where messages may be left and the General Secretary and other officers may be seen by appointment.

FUTURE OF THE CINE-TECHNICIAN

We shall definitely continue publishing *The Cine-Technician*. Restriction of supply and increased price of paper and other contingencies will mean some alterations in format. Publication may also be not so frequent. But we shall certainly carry on.

Technicians will be more than ever scattered during the war and for many of them *The Cine-Technician* will be the only medium of keeping in contact with each other. We want particularly to publish personal details of the whereabouts and activities of our members, as far as officially possible. All technicians are therefore urged to make a special effort to overcome their normal reluctance to write letters and keep in regular communication with us.

Members serving overseas should let us know their forwarding address so that we may send them *The Cine-Technician* regularly.

WHAT A.C.T. IS DOING

Since the outbreak of war A.C.T's. officers have been in constant touch with Government Departments and other bodies. Following an interview between the President and General Secretary and a member of the nucleus planning staff of the Ministry of Information, a letter was sent to all members on September 2nd advising them:—

(1) It is hoped that film production will continue in so far as circumstances permit;
(2) Therefore film technicians (other than those in lesser posts) are advised, if their economic circumstances permit, to refrain for the time being from undertaking national service other than that to which they are already committed;
(3) This applies to all technicians whether at present on the Ministry of Labour's Schedule of Reserved Occupations in the film industry or not, but should not be taken as a guarantee of work to all our members.

MINISTRY OF INFORMATION

The Ministry of Information will be responsible for all Government propaganda, including films. Sir Joseph Ball is Director of Film Publicity, assisted by Sir Patrick Gower and Mr. Oliver Bell. Mr. Charles Dukes is the Trades Union Congress representative on the Main Advisory Committee with whom A.C.T. officers have already had a useful exchange of views. Mr. Will Evans (of P.C.T.) is the film expert on this Committee. A detailed policy has not yet been announced but it is understood (as reported in our circular to members) that it is proposed that film production for entertainment purposes shall continue in addition to the production of newsreel, propaganda and technical films.

SCHEDULE OF RESERVED OCCUPATIONS.

The declared intention of the Government that film production should continue is borne out by the amended

WAR *(continued)*

Schedule of Reserved occupations published since the outbreak of war by the Ministry of Labour. In general reserved men cannot be accepted for whole-time service in any of the Services of National Defence if they are of or above the age mentioned against their occupation. Men below the age can generally be accepted in any of the Services of National Defence. *Men may be accepted at any age for service in their professional capacity in any of the services of National Defence.*

The following grades are reserved (the list applies to both men and women except where otherwise stated):—

Cinematographic Film Production	*Age*
Camera Operator (Cinematograph)	30
Camera Operator (Still)	30
Camera Operator (Process Work)	30
Photographer (Commercial Portrait)	30
Sound Camera Operator	30
Sound Recordist	30
Film Editor	30
Film Commentator	30
Film Librarian	30
Photographic Processing	
Developer, photographic processing	30
Dryer	30
Printer, reduction printer, photographic processing	30
Optical Printer	35
Sensitometric Control Assistant, photographic processing	30
Photographic Plate, Film, Paper etc., Manufacture	
Foreman, Charge Hand	30
Emulsion Maker	30
Emulsion Coater (film, photographic and sensitized paper)	30
Women Only	
Photographic Processing (cinematographic film) All grades ... irrespective of age	

It will be seen that the present list is more comprehensive than the previous one (published in *The Cine-Technician* July–August, 1939) but certain grades essential to film production are still omitted. A.C.T. has already approached the Ministry of Labour on this point.

CINEMATOGRAPH FILMS ACT

It came to the attention of the A.C.T. that the Board of Trade proposed to suspend the Cinematograph Films Act for the duration of the war. Mr. Elvin immediately wrote to the President of the Board of Trade as follows:—

> It has been brought to our attention that film renters have in mind the acceptance of British productions *subject to the continuance of film quota legislation*, and that such a contingency will be provided for under the cover of a general war clause. We trust this does not imply that such renters may have been led to understand that there is a possibility of the film quota legislation being repealed.
>
> We feel at the present time that it is more than ever important that the British film industry should continue to function, and subject to any policy which the Ministry of Information and other Government Departments may pursue, the greatest asset to commercial film production will be an assured market. The quota legislation gives this.
>
> We are very strongly of the opinion that if the quota legislation is repealed it may lead to a repetition of the unfortunate position which arose during the war of 1914–1918, when the American film industry largely captured the British film market—a calamity from which we have only recently begun to recover, and for which recovery the quota legislation is largely responsible.
>
> We are sure the Government does not wish a similar position to occur, and as we are of the opinion that the continuance of the quota legislation is the greatest safeguard against this, we trust that no action will be taken to repeal or amend the Cinematograph Films Act, 1938.
>
> If the Government has such repeal or amendment in mind, we trust this Association will be given an opportunity to outline its views to you before a final decision is taken.

An interview followed, at which the Board of Trade's intention was confirmed. Agitation against this was commenced immediately, and Mr. Oliver Stanley received a joint deputation from the British Film Production Association (representing the employers), and the Film Industry Employees' Council (representing the N.A.T.K.E and the A.C.T.) As a result it is expected that the Board of Trade will amend its intention to leave the film industry completely unprotected, and a definite assurance has been received that the Fair Wages Clause will continue. As we go to press a further meeting is promised with Mr. Oliver Stanley at which such proposals will be discussed.

One thing remains clear. But for the prompt action of A.C.T. the Quota Act would have gone and the film industry would have been left to suffer a similar fate to that experienced during the last war.

APPEAL TO STUDIOS AND LABORATORIES

The following press statement was issued by the A.C.T. General Council following its meeting on September 10th:—

> Reports received by the Executive Committee indicate a very large proportion of its members have either been dismissed or are under notice. In view of the declared intention of Government departments that production shall continue (a policy substantiated by placing of the majority of film technical grades on the Schedule of Reserved Occupations) difficulty may be caused in the near future by such dispersals of staff.
>
> It is appreciated that the country is going through a period of economic reorganisation, but it should nevertheless be pointed out that, in addition to the question of individual hardships, which in many cases is not inconsiderable, national interest may also suffer if, when production is demanded, there is difficulty in obtaining crews of experienced technicians.
>
> The A.C.T. therefore trusts dismissal of staffs by production and processing companies will be withheld, or, in such cases where notice has already been given, the companies concerned will explore every possibility with a view to withdrawing such notices.

FILM CENSORSHIP

The General Council also passed the following important resolution on film censorship, which was sent to the Ministry of Information and also released to the press :—

> The General Council of this Association understands that steps are being taken to make the British Board of Film Censors responsible for " security " censorship not only of entertainment films but of all films, including newsreel, sub-standard and films for export, on behalf of the Ministry of Information. The General Council is of the opinion that the British Board of Film Censors, owing to its past practice and constitution, is entirely unsuitable for this work, which in any case should not be entrusted to a private firm, and urges, therefore, that it be not appointed to execute this work, which should remain the direct responsibility of the Ministry of Information.

A.C.T. ORGANISATION

The war will undoubtedly present organisational difficulties to A.C.T. The war of 1914–1918 proved how essential is trade union organisation. A.C.T. for the duration of the war will be more than ever important to technicians in :—

(1) Maintaining contact with Government Departments.

(2) Safeguarding their general interests, not only during the war but for the future.

Our efforts must not be slackened. On the contrary we ask the co-operation of all members in building up 100% organisation in all places where film production and processing continues.

Our laboratory members must remain vigilant to ensure the laboratory agreement is maintained and national emergency not made an excuse to depress wages and working conditions. On the studio side members will know that a general collective agreement has been in process of negotiation for some time. In view of the urgent need to stabilise the industry, however, application has been made to the Executive Committee of the British Film Production Association for the immediate negotiation of a three-point agreement regulating salaries, hours and overtime payments. This would reduce to a minimum any action which A.C.T. may have to take under the Fair Wages Clause affecting employees engaged in film production.

OUR CONTRIBUTION

The attitude of A.C.T. is admirably summed up in the following letter from the President, the Hon. Anthony Asquith, which appeared in *The Times* of September 15th :—

> I would like to emphasise that the film can perform more economically than any other medium two functions of national importance. It can supply relaxation and information simultaneously to any number of audiences.
>
> Nobody denies the importance of entertainment in wartime, but the film has other indispensable uses. Its recent progress has made it far the most potent medium for instruction and propaganda. The value of films to supplement and illustrate the lectures of military and civil instructors is obvious.
>
> Then, there must be a record of the activities of our fighting forces. The War Command of today will need it no less than the historian of tomorrow.
>
> Lastly, for propaganda at home, in the Empire and in allied and neutral countries, the film cannot be replaced.
>
> We have a large body of highly skilled technicians anxious to use that skill in national service. But there is a great danger that they will be dispersed beyond hope of recall unless production resumes immediately.
>
> The Ministry of Labour has placed most of the key grades of film technicians on its Schedule of of Reserved Occupations. But there is little profit in reserving labour for non-existent work.
>
> Unless the position of films is made clear—and I welcome Sir Samuel Hoare's assurance in the House that the matter is receiving attention—it will be impossible for film technicians to serve their country in the way that they alone can.

WE NEED ONLY ADD THAT WE LOOK FORWARD TO THE CO-OPERATION OF ALL TECHNICIANS IN MAINTAINING & STRENGTHENING THEIR OWN ORGANISATION WHICH IS JUST AS ESSENTIAL TO THE FILM INDUSTRY AS THAT INDUSTRY IS ESSENTIAL TO THE NATION IN HELPING TO ACHIEVE A SUCCESSFUL OUTCOME TO THE WAR.

ONLY BY UNDERSTANDING THE PAST AND THE PRESENT CAN WE BUILD A BETTER FUTURE

JUST PUBLISHED

FILM BUSINESS IS BIG BUSINESS

A Pamphlet that **MUST be read**

Prepared for A.C.T. by Ralph Bond from material supplied by the Labour Research Department

Foreword by George H. Elvin

Price: 2d. (3d. post free)

From The Association of Cine-Technicians: 9, Bromefield, Stanmore, Middlesex, and: (Third Floor), 59, Shaftesbury Avenue, London, W.1.

George Bernard Shaw, already, according to his own early description, "an Irishman, a vegetarian, a social democrat, a lecturer and debater, a lover of music, a fierce opponent of the present status of women and insister on the seriousness of art," and subsequently world-famed as dramatist and sun-bather, in his eighty-third year muscled in on a fresh field, screenwriting. He became joint winner of the Hollywood Academy of Motion Picture Arts and Sciences' award for the best screen adaptation of the year with the screen version of his own "*Pygmalion*." He apparently intends to have a future as a screenwriter, whatever may happen to London Bridge (see answer to Question 10), since he has paid ten years' advance subscription to the Screenwriters' Association. We knew his views on films would interest readers and sent him the twelve questions which are reproduced opposite, with answers in his notably clear handwriting.

DOCUMENTARY FILMS AND THE THEATRE (*Continued from page 77*)

Certain shorts produeers have been suceessful by keeping their costs down to an absolute minimum, and making very simple subjeets with very simple treatment. Most of you will have seen the quite pleasant series of films made up largely of shots of picture postcards. Mr. Lowenstein picked a cheap subject in *Reporter in Soho*, which he tells me eost about £150. He made the film singlehanded, and his figure contains no allotment for wages of any kind. But once the producer has exhausted the simple subjects at his front door, and the moment he wishes to deal imaginatively with big and interesting subjects, he has either to get money from outside or to drop his programme. For a quality documentary often eosts as mueh as £1,000 a reel, or more, to make. And at this level, one can say that no documentary short, however pleasing to however many exhibitors and audiences, ean get its money back unless it is a sensation. And sensations are few and far between.

It follows that, if produeers are to tackle a decent range of subjeets and pay a decent scale of wages, they must at present look elsewhere than to distribution profits for finaneial support.

You must not imagine from this that I am eomplaining about the renters. Those who handle our work have done very well by us and give us plenty of support. But the fact remains that they can either book our films for 7/- or even less (I have seen prices as low as 1/6) for three days or not take the booking at all.

This position arises in two ways. Some renters, sensibly enough from their point of view, book a complete programme to a theatre. This will probably consist of a first feature, a seeond feature, a novelty item and a short. The receipts are split up over these four films and naturally enough the first feature gets the biggest proportion, the second feature less, and two shorts a very small amount indeed. Many American companies bring in shorts and literally give them away to theatres for nothing as make-weight. This has a depressing effect on the price of all shorts.

As long as these two factors operate, we are unlikely to seeure higher prices, and indeed a major eircuit has recently announced that it proposes to slash its payments for shorts by half.

But in spite of these problems the Strand Film Company has broken new ground by producing its twelve Zoo films unsponsored by any outside interest whatever. The Zoo merely gave the neeessary facilities. This is probably the most courageous act in the doeumentary movement for many years, and I hope that it will pave the way for the future. But even here Strand were lucky. They found a box-office certainty in the animals. There was no necessity for sync. shooting, there were few interiors needing lights, no hotel expenses, and little travel.

1. Did "Pygmalion" lose any of its force in being transferred to the screen ? No.
2. Do you think Hollywood could have made a better version of "Pygmalion" ?
No: Hollywood would have murdered Pygmalion. That is why Hollywood did not get it.
3. Which film version of "Pygmalion" do you prefer - the earlier Dutch one, or the recent British one ? And why ?
I prefer my own version, which is substantially that followed by Mr. Gabriel Pascal.
4. It has been said that on the screen "Pygmalion" dates and seems old fashioned. What is your opinion ? Anything that is not the latest ephemeral Californian slang seems old fashioned in that benighted State. I write English — classical and vernacular English.
5. Are you likely to write directly for the screen ? If not, why not ? My stuff is as good on the screen as on the stage.
6. What is your opinion of screenwriting as a profession ? Is the scenario-writer necessary ? That depends on how much the author leaves undone. The author, if a playwright, should do everything except the shooting script.
7. Would you agree that it is essential for the well being of the British film industry that it should recognise the organisations representing its technicians, and make agreements with them ? Of course it should.
8. Have you seen any films which you think are the equal, from artistic or propagandist reasons, of your own work in the theatre ? What do you mean by "equal"? Nothing, apparently. Pass on.
9. Do you think the British Board of Film Censors is necessary ? It is only a contrivance to enable timid film firms to give themselves certificates of decency.
10. Do you think the British film industry has any future ?
Of course I do. Do you think London Bridge has any future ?
11. Now that you have joined your professional organisation (The Screenwriters' Association), are you also going to join your appropriate Trade Union in the film industry - The Association of Cine-Technicians ?
I am not a cine-technician: I am a playwright.
12. Who in your opinion is the second greatest dramatist in the world ?
I do not know; and neither do you. You must wait a few centuries for your answer.

---ooo---

It has licensed some films that have driven me from the theatre by their dull lubricity, and simultaneously banned a film to which it ought to have given a gold medal for distinguished service to public morals. Such certificates are worthless and sometimes mischievous.

6/8/39

RONALD NEAME

reviews

"PHOTOGRAPHY BY INFRARED

Its Principles and Application"

By WALTER CLARK, Ph.D., F.I.C., F.R.P.S. Chapman and Hall. 25/-.

DURING the past few years, the use of Infrared has become invaluable to the practical cinematographer; no cine technician therefore should be without a good all round knowledge of this intensely interesting branch of photography.

An interesting example of the strange characteristics of Infrared is an experience that a fellow cameraman had recently. He was called upon to make a night shot of a squad of policemen and chose to do this by Infrared. When he saw the shot on the screen the next day he was amazed to see that although the bulk of the policemen's uniforms had photographed black, one or two here and there had come out mid grey. The uniforms, which were wardrobe props, although all the same colour, were made of two different materials which had had an entirely different effect on the infrared emulsion, which is sensitive to heat as well as light-reflection. The reason for this and many other Infrared peculiarities are fully explained in Walter Clark's "Photography by Infrared."

Photograph on Ilford Infra-Red Plate →

Same subject on Ilford Pan Plate ←

Ilford Infra-Red Plate and Infra-Red Filter

I can think of no better introduction to Infrared than reading this book. The whole subject is dealt with in a most interesting and straightforward manner, and although one or two chapters are rather technical the greater part will be easily understood by anyone who has only a little knowledge of the practice of ordinary photography.

It is generally recognised in Hollywood that at least 50 per cent of exterior night shots are best if photographed during the day with the use of infrared film. The amount of money saved is considerable. In England we do not make nearly enough use of this valuable asset, and not more than 10 per cent of night exteriors are shot in this way. "Photography by Infrared" contains a lot of useful information on this subject, and every cameraman who reads it will I am sure save himself many cold nights on the studio lot.

The characteristics of Infrared Photography have resulted in its successful application to many fields of study, several of which are tremendously important to the cameraman. The book deals fully with the pentration of haze in long distance photography, with unusual illustrations, and also contain interesting information about aerial survey work. A section headed "Photography in the dark," although unnecessary knowledge for the average photographer, makes absorbing reading.

Other subjects dealt with are the uses of Infrared Photography in Medical Diagnosis; Photomicrography; Botany; Palaeobotany and Palaeontology; Examination of Documents and Works of Art; Spectrography and Astronomy; and a section which interested me greatly showing what a powerful weapon Infrared may one day become to the criminologist.

One of the early chapters is devoted to the construction of a workmanlike photographic darkroom complete with plans, also particulars and instructions on the mixing of photographic solutions. This portion of the book alone is worth a lot to any amateur, even if he or she is not interested in Infrared.

Space does not permit me to tell of the hundreds of interesting facts which are recorded in the pages of this important volume, but I do earnestly recommend everyone who considers himself to be a student of photography to read it without fail.

HOLIDAYS WITH PAY

To enjoy the full benefit of a holiday costs more than a week's wages

The Holidays with Pay movement is steadily gaining ground. This year thousands of Trade Union members have benefited from it for the first time, and next year the number will be still further increased.

A week's wage, however, is not enough to cover the expenses of a proper family holiday by the sea or in the country. Union members will, therefore, be well advised to supplement their Holiday Pay by personal savings.

Nor should they put off saving until they are within a few months of going away. Preparation for next year's holiday should be going on now, and the most convenient way of putting by a bit of money for it week by week is to join a NATIONAL SAVINGS HOLIDAY CLUB. Clubs of this kind have already been established in thousands of places of employment throughout the country, providing employees with a secure means of saving personally for holiday purposes.

TRADE UNION OFFICIALS in a number of important industries are giving valuable support to this scheme which can obviously be of great service to Trade Union members.

The National Savings Committee offers every assistance in the organisation of Holiday Savings Clubs, including the provision of a speaker to address prospective members and an explanatory circular letter for distribution. Membership cards, literature, etc., are supplied free.

Enquiries should be addressed to the

NATIONAL SAVINGS COMMITTEE,
(REF. R 21 d), LONDON, S.W.1.

DOCUMENTARY FILMS and the THEATRE

[*Courtesy: Strand Film Co., Ltd.*

I HAVE often been told by my friends in the studios that, were it not for the fact that people can see some of our films for nothing, we should go out of business tomorrow. The ordinary public, they say, would never pay to see a documentary. I have always been surprised that such opinions should occasionally be held, since whatever else you may think about documentary, it *does* penetrate the theatres pretty widely.

It is worth remembering that, though the word "documentary" was only invented in about 1925, the idea of documentary, that is the screen interpretation of things as they are, rather than a fictional interpretation, has been common in the cinema from the beginning.

The earliest box-office successes somewhere in 1898 were simple pictures of streets and traffic and trains. So powerful was the effect of a train coming towards the camera that it is said that people left their seats in panic. Not very long afterwards, the news reel developed and kept alive a taste for factual presentation.

But by 1917 the fiction film had secured almost an absolute hold on the cinemas. Nevertheless, a few imaginative men in America saw in the film something more than a means to present slapstick comedy and sexual entanglement. James Cruze in his *Covered Wagon* subordinated a personal story to the epic struggle of the wagon trail across America. John Ford took for his hero a railway when he made *The Iron Horse*. In England, Bruce Woolfe reconstructed battles of the War. He turned his attention to the scientific film, and produced his famous *Secrets of Nature* series. Robert Flaherty, working alone, made *Nanook of the North*. These early documentaries were not tendencious. On the whole they did not attempt to influence public opinion.

Russia was faced with the problem of interpreting to her people the new society which she was building. She began to use the film not only as a medium of entertainment but also as a medium of education and propaganda. Turin made the film *Turksib*, which not only described the building of a railway, but also interpreted its use to the people it was going to serve. From that time the documentary film became associated with propagating not only information, but ideas and points of view.

A little later Sir Stephen Tallents, secretary of the Empire Marketing Board, faced with the problem of bringing alive the Empire to its people, also turned to film. In 1929 John Grierson made *Drifters* for the E.M.B. *Drifters* was also important because it was second feature in length and not a short. Following this success, the E.M.B. turned seriously to films and within a year or so produced the "Imperial Six." These were short films distributed by Ideal. They were a public success and included *Industrial Britain* by Grierson and Flaherty, *Country Comes to Town* (Wright) and *Upstream* (Elton). These films, which really established the documentary movement in England, were all designed for and circulated in the theatres. They showed once and for all that films about industry and commerce, imaginatively treated, could hold their own beside the typical entertainment short of the day.

In spite of success in the theatres it was clear that not all films of value could be handled in this way, either because of their propaganda content or because of their

By

ARTHUR ELTON

instructional flavour. Such films were—and still are—inappropriate in programmes primarily intended for entertainment.

So the Empire Marketing Board set out to build a distribution service of its own, designed to reach those people who were anxious to see films of a kind different from that offered in the theatres. The E.M.B. sought to show some of its films privately up and down the country wherever any groups of people were joined together for cultural or social purposes. Such groups included all kinds of organisations such as the Churches, Women's Institutes, Workers' and Adult Education Movements, and, most important of all, schools and educational groups, juvenile and adult.

In this way the British documentary film came to be identified with public education, which is today the key to its success.

The documentary movement has two pretty firm foundations, the non-theatrical educational movement and the dramatic presentation of everyday life and experience in the public theatres.

Hard words are sometimes spoken by exhibitors about the non-theatrical movement. It is often said in the trade press and elsewhere that the non-theatrical movement is cutting into the business of the theatres. In one respect there may be some truth in this. For straight entertainment films are often shown free in public houses and other places. A method of dealing with this problem is in the hands of the producers and distributors themselves, the very people who make the complaints. If a feature film appears on 16-mm., it is quite clear that the rights have been sold to the non-theatrical distributors. The solution is simple—do not sell the rights. And such an arrangements works quite successfully abroad, for example, in Holland.

The documentary movement has never included the studio-made fiction film in its non-theatrical distribution for quite a simple reason. We claim that our films are self-sufficient in themselves; they do not need the support of the fiction film. If we used fiction films in our non-theatrical distribution we should consider this a sign of weakness, if not of absolute failure. The documentary non-theatrical movement aims deliberately at a special audience or, if you like, an ordinary audience in a special frame of mind. We meet a need quite other than that met by the theatres. In so far as we compete we are unsuccessful. Indeed, we are doing the cinemas a good turn by tapping an audience who, if they did not come to our shows, might never go to a film at all. By our influence they may be brought within the ambit of the public cinemas.

I have talked a good deal about documentary films, but I have not attempted a definition. Yet we have a very definite theory behind our work.

Our films are made with the belief that a powerful factor in nearly everyone's make-up is curiosity. People like to know things. They like to go behind the scenes.

[*Courtesy: Realist Film Unit*

Instruction, far from boring people, pleases them. And perhaps more important, the documentary film assumes that romance lies not only in elaborately conceived works of art, but also in the simple things of life, in craftsmanship, behind the routine of an office, in government and in the streets, in factories and shops.

Documentary film makers believe that if you can only relate an office to the world it serves, if you can only explain the workings of a machine so that anyone can understand it, you not only arouse and satisfy curiosity, you also create a drama of everyday life. The fiction film caters for one need; we cater for another.

When documentary does turn to fiction, as in *North Sea*, it does not seek its plot in the fevered imaginations of the novelist. The script of *North Sea* was based on log books of radio stations.

Such is the simple theory, and the popular success of documentary films in the public cinemas would seem to vindicate it.

Though there is no doubt of the popular success of many of our documentaries in the theatres, their financial success is a different matter, and unfortunately not determined by popularity alone.

If you look at the booking position of shorts in this country (I am excluding American shorts, including Disneys and the March of Time, and such English fiction shorts as are made), you will find that the average gross takings will work out at not more than £750. Of this amount the producer may reckon to get about £450, that is, 70% of the gross after certain deductions have been made for trade show, publicity and copies. And he may often have to wait for a year before he sees all of this. Though there have been exceptions, and some short films have grossed very much more than £750, no shorts producer dare gamble on a higher figure. This brings us to the cold fact that a short film, if one treats it as a straight commercial proposition, cannot be allowed to cost more than, say, £400 at an outside figure, leaving £50 for profit.

Now let us turn to the other side of the picture. Is it possible to produce a *series* of high quality short documentaries at production costs not exceeding £400? The answer is, I am afraid, "no."

(*Continued at foot of page 72*)

The Film in Scotland

by
John Neill-Brown

WITHIN the space of an article of this length it is naturally impossible to deal adequately with the subject on anything like the scope that the grandiose title suggests. It is only possible to give a few randon reflections on the views that I have formed during my exile from Wardour Street.

As a general comment on the position of the film in the lives of the people it should be clearly understood that outside of the cities like Glasgow and Edinburgh there is no enthusiasm whatever for the proper understanding of the film as an art. It has settled down as a regular diversion to which you go once or twice a week according to the local change of programme, about which you never get excited in advance because you never read the advance publicity and which you forget almost before the national anthem has played itself out. The only film on which I have heard any comment recently was an old Chaplin re-issue, an undoubted success. If the younger generation discuss films at all it is in terms of the cheapest sensationalism and in the case of the girls it is confined to poor imitations of star styles. One healthy symptom emerges from it all, however, the fact that they all concentrate on the only really important part of film making —how well the story is told and acted.

In districts such as this in which I live the natives have never taken very kindly to the British film. To a certain extent this may be due to the fact that many parts of the densely populated Lowlands have a preponderance of Irish workers or at any rate people of Irish descent, whose sympathies and mode of life is very like that of the large Irish communities in America. Most of them have relatives by the dozen in the States and in Canada, and it is not surprising, therefore, to find that they appreciate the Transatlantic manners and customs more than those of the London West End. The young men ape the toughness of Cagney or Gable to such an extent that they are hardly aware that it is that sincerest form of flattery, while their accents, usually a mixture of Irish and adenoids, are closely modelled on the American language. They are amongst the most insular and parochially minded people I know, but the American film is part of their insularity; it is the British film which is foreign. They do not understand the "lah-di-dah" of the artists, and the stories as a rule, according to local standards of taste, are beneath contempt. The manager of the cinema where I first made acquaintance with the film industry many years ago tells me that it is as good as emptying his hall to tell the audience that he is running a British picture. "*Pygmalion*" was a terrific success, mainly I should think because of its high standard of acting and because the Cinderella theme is always sure-fire among the working classes, and "*The Citadel*" is going down well partly because Robert Donat's "Scottish" doctor is just such a type as has sprung so often from their own class and because the Welsh workmen do look and talk and act like workmen. These films are exceptions.

And that leads me to suggest that one reason for their indifference to British films as a whole may be due to the rather scurvy treatment that has been given to Scottish stories and Scottish characters in the past. Especially to the characters. Admittedly it is a character that is difficult to get over adequately on the screen, what with its contradictions, inhibitions, sentimentality and hard-headedness, and indeed outside of "*Edge Of The World*" I cannot remember any good representation of it in recent years at all. In a way "*Edge Of The World*" was in itself rather remote from the ordinary life of the Scottish Lowlands, but the "types" were such as could easily carry conviction. When Hollywood shows a Scotish character it is very seldom serious, and the people here make due allowance for the distance of Hollywood from Scotland. But when England represents a similar person it is an occasion for laughter of the wrong sort, when it does not actually inspire resentment. At a showing of "*The Thirty-nine Steps*" in our village there was continuous hilarity at the alleged northern accents, and an even more serious turn is shown in the latest Gracie Fields epic, "*Shipyard Sally.*" In a very full study of the film in "*The Glasgow Evening Times*" the reviewer says:—

> "I was told by an official of Twentieth-Century Fox . . . that "*Shipyard Sally*" is the finest tribute ever paid to Scotland . . . To claim that the film is a tribute to Scotland when it is merely a story about nit-wits is an insult. To pin (however unwittingly or kindly meant it was done) its farcical nonsense on to the unhappiness and dejection of a community of idle shipyard workers is unforgiveable."

Is it any wonder, in the light of this, that British films are not a very great success in Scotland?

There is, of course, no active studio here, otherwise I am sure that efforts would be made to rectify the error in Scotland itself. There are quite a number of people who believe that there should be at least a proportion of the films authorised under the Films Act made on this side of the border, a proportion, say, equal to the population. If this were so we could make 10% of the British films here and under full working conditions this would mean the employment of anything up to 1,000 people, which, considering that the ratio of unemployment is very much higher in Scotland than it is in England, would be an enormous benefit. Considering the numbers of Scotsmen in and around the London studios and in every department it would not be so difficult either to collect the personnel. We have already given the industry such writers as McDougall and McKinnon of "This Man" fame, directors like David MacDonald, cameramen like Alex Bryce, art directors like Duncan Sutherland, studio managers like Clarence Elder, artists like Alex Sym and Flora Robson, and indeed all sorts and conditions of personalities from John Maxwell up (or is it down or even out?) to Ken Gordon. And there is no physical reason why we

(*Continued on page* 80)

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THE FILM IN SCOTLAND

(*Continued from page 78*)

should not be able to give still more. We could never support a big production schedule, but a studio near, for example, Loch Lomond would have advantages not enjoyed in the south. It would be much closer to an almost inexhaustible source of exterior locations, sea, loch, moor, forest, and mountain, and for supplies and labour it is no further from Glasgow than Denham is from London.

But this, for a time at any rate, is an impossible dream. Our fictional studio activity is nil and our documentary work is really just beginning. There are many vigorous film societies all over the country, but none of them so far as I am aware produces. There is a very strong and growing education film movement and a central film library for schools, run jointly by the Carnegie Trustees and the Scottish Film Council. This movement in educational pictures has emanated from Glasgow, where one of the leading members is Mr. J. C. Elder, a Glasgow school teacher and brother of Mr. Clarence Elder of Associated British Studios. In his spare time he runs, with Mr. J. Blake Dalrymple, a small company called Elder-Dalrymple Productions which makes shorts of the travel variety and last year sent two men on a long trek through Africa shooting material for use in teaching geography. Their experiences have been recorded in the recently published "Celluloid Safari."

Apart from this very small company the only active production unit is the firm of Scottish Films Productions (1928) Ltd., which has actually been in existence for some time but has only really got under way during the last year or so. I had the good fortune to make their acquaintance recently when I assisted them in the editing of one or two of their shorts, and it may be of interest to A.C.T. members if I try to describe what is the biggest production company north of the Tweed. The whole set-up comprises a "studio," cutting rooms, production offices, theatre, recording rooms and laboratory. They have also a mobile sound truck, which is really a fairly well equipped trailer on the back of an ordinary car. The company is located in the heart of Glasgow, near Charing Cross, and their building is part of a long block of offices of similar frontage, some of which are small hotels and some suites of offices. The basement of the building houses the laboratory, which, of course, must not be thought of in terms of Olympics or Humphreys. It is a one-man show, more or less, and without undue rush is capable of turning out about 50,000 feet of print per week. Their printing quality, by the way, is well up to London standards and one can rely on an excellent standard of consistency. Wipes and mixes are made without the optical printer, a refinement which the volume of work has not yet justified. I was more than surprised at the splendid quality of the wipes, also, and would not have much difficulty in maintaining that there is less density change in the local wipes than in anything I have received elsewhere. I cannot leave the lab, however, without making one comment of importance—the white suits of the lab men (both of them) would have been a real joy to Austin Reed . . . well, why be niggardly, to Pope and Bradley. They were the spotless acme of perfection.

The studio, immediately above the lab, is a small affair, hardly capable of taking a set larger than a small room, but quite adequate to all the demands that are made on it, which are not many. But the main thing is that it is there if wanted, and is frequently used by the orchestra during recording sessions. On the same floor as the studio is the main office and the camera store. They have quite a variety of cameras, Debrie, Newman-Sinclair and Vinten, the last mentioned being quite a recent model for studio use, and the etceteras are all that a cameraman could desire.

Above this floor are further offices and the cutting room, which, having been a lounge when the place was a house, is of palatial dimensions compared with the normal cutting room. It is just a little smaller than the negative cutting room at Elstree Labs, and is well furnished for the job of cutting. Being more familiar with it, I would have wished for a Hollywood moviola, but the Editola here was in excellent condition and proved quite a joy. Four-way synchroniser, several cutting tables, all the usual horizontal and vertical rewinders, storage cupboards and so forth complete the equipment, all of which proved to be necessary the first day I arrived as I had Donald Alexander of Strand Films for company. He was directing a film in Dundee which is being made by Scottish Film Productions for the Films of Scotland Committee. The negatives of all their films are also cut here.

Lastly, on the top floor, is the theatre and the recording rooms, with a special small room looking into the theatre for the commentator. The set-up of recording room, camera room, commentator's booth and theatre is very compact and reminded me somewhat of a similar arrangement that Bay Honri used to have at Twickenham, mirrors being used in the same way. There are two standard projectors, mechanically coupled for the running of cutting copies, the theatre being about the same size as the cutting theatre in any studio. This is Scotland, however, and the spaces at the sides of the screen are taken up by two huge deer heads, complete with antlers.

The recording system is like the majority of the apparatus in the place, and is of native origin. It is a variable density track, called Albion Truphonic, and is the invention of one of the partners of the firm, Mr. Malcolm Irvine, an ingenious engineer. He has made all the recording camera gear also, and made a very good job of it. Neither he nor I would pretend that the results are quite up to Western Electric noiseless or R.C.A. ultra-violet, but they are good, clear, crisp, and without flutter. They have one big defect at the moment, which they are on the way to remedy—no re-recording. Again one can only say that up to now they have not required it or have been able to do without it.

One minor feature of the place can hardly escape notice, due to the fact that Mr. Irvine is also the owner of the Double-Arc Welding Company, whose offices are in the same building. Everything that *can* be welded *has* been welded, even to the hinges on the doors of the laboratory plant. Mr. Irvine, I may add, is also the sound recordist.

The product of this company up to now is in no way distinctive, other than that it all deals with Scotland. It is mainly confined to publicity and propaganda shorts, and they certainly have never made a full feature length sound film, though away back in 1924 or so they made a full length silent called "*Bonnie Scotland Calls You.*" Wherever it was put on it filled the house and is still regarded with affection by the company. They made one or two films of the two or three reel sort for the Glasgow Empire Exhibition which were very highly regarded by both public and clients. Of these "*The World Of Steel,*" made for Colville's, was perhaps the most successful, and their "*Sport In Scotland*" was probably the best of the bunch ordered by the Films of Scotland Committee for the occasion. Another, "*The Story Of Culross,*" is now being shown at the World Fair in New York.

While Mr. Irvine attends to the mechanical side of the place, the second partner, Mr. Stanley Russell, attends to the production, does quite an amount of direction and most of their cutting. It just would not be fair at the moment to comment on their work as one would of the work of a major studio as most of it is for clients who have very definite ideas on what should be shown and what should be said about it, and with true Caledonian caution they are usually unnecessarily reserved. Shooting is confined to taking things in the most obvious way and the commentary keeps in step with it by telling you exactly what you see as you go along. Well, it has its advantages, but it is not very inspiring, and the directors know it. But within their limits it is much better to please the customer and get more business than to try any tricks and put yourself out of business. So the films they make here are not much different from the films made in London except for one thing, they give a truer conception of Scotland, its work and its people than we have seen as yet.

The permanent staff here is as small as you might imagine. Apart from the two partners mentioned there are two laboratory men, both excellent at the job, with a boy to help when he is not running the projector or assisting in the cutting room. An operator who is also assistant sound engineer, camera operator and sound loader, librarian and assistant cutter, Irene Irvine, the boss's daughter, who is also assistant cutter, and Graham Thompson, the cameraman, an excellent interior worker, complete the staff. Owing to the smallness of the place and the fact that there is not such a great deal to do as yet, everybody does any part of the work that he or she is asked. There is really no set job. Which is all to the good, as they all get a pretty good idea of every phase of the work and not just of one small isolated department.

Finally, trade union wages and conditions? Don't be so damned silly.

PAVEMENT PHOTOGRAPHER SPEAKS

"In the last three days five pavement cameramen have given me a ticket which I am invited to send with a shilling for the photograph they have taken. I wonder how many do send because if they are like me, these men must have a job to make a living."

This is what one pavement photographer said: "We get fourpence in the shilling on takings and you can count on sixty tickets being sent up for each thousand snaps you take a day.

"Going full out early morning till late at night you can get two thousand snaps and that means six pounds in takings and two for you. But don't run away with the idea it is a two-pound-a-day job. You have to have the right—weather that is—and the right crowd of visitors to get in a two thousand day. I've been at the game ten years and I average about four pounds a week, because when there is any sunshine, boy, I snap!

"Though men are shy at being taken, more men send up than women. But the best bet is the couples, especially when they are just at the "coming on" stage. Auntie with nephew or niece, and, of course, Granny or Grandad with the grandchildren are sure things. Oh yes, we can spot 'em. Experience you know."

They have to be psychologists and physiognomists as well as photographers!

—(Reprinted by kind permission from *The Star*).

INDIA TOO

THE grumbles of the film industry seem to be the same all over the world. Everywhere it moans that it is on the point of expiry and harassed by an insensitive Government. Here comes the annual lament of the Indian Motion Picture Producers' Association. They have a woeful tale to tell of lack of finance and excess of taxation. They certainly seem unlucky about taxation—in addition to entertainment tax in various provinces and the general tax they pay as industrialists, they often have to meet an *octroi* (a duty levied on goods moved from one province to another), in Madras taxes on advertisements and cinema slides, and in Bombay and Bengal a special tax on the electric current they consume.

Their grumble at the extension of the Factories Act seems less founded. They trot out the usual employers' remark about technicians not being "workers," as though to "work" were a derogatory term. Anyhow, seeing that the list of exemptions they have obtained covers nearly all the members of a normal unit, it's difficult to see why they should continue to kick.

They urge their exhibitors to cut down the too high percentage of free passes; and hand certain of the press a body blow for methods of getting advertisements that can only be described as blackmail, though probably in the papers concerned it is known more chastely as "editorial policy."

As solution, the Indian Producers reject the idea of a quota scheme as impracticable—there are only 1,000 cinemas in India, and only 200 of those show non-Indian films. (It is interesting that they very exactly estimate India's ultimate capacity to be 5,423 cinemas, of which 3,000 should be travelling units). The solution, they urge, is central provision for finance by the setting up of a film credit bank. We seem to have heard of that before, too.

The following statistics, quoted from "*filmindia*," give some conception of the Indian industry, as in April of this year.

Number of permanent cinemas in India	996
Number of touring cinemas in India	500
Indian Film Producing Companies (active)	75
Number of Indian films produced	200 films annually (average of last 5 years)
Amount spent annually only in Newspaper Publicity	Rs. 43-1/4 lakhs
Amount spent in general publicity including newspapers and outdoor publicity	Over a crore of rupees annually
Import duty paid annually on raw and exposed films	Rs. 14,89,382 (1937-38)
Annual income to the railways from the Industry	About Rs. 15,00,000 -
Remittance by foreign distributors to U.K. and United States annually	55 lakhs of rupees
Number of skilled workers supported by the Industry	40,000 and over
Number of Distribution Offices	Indian 253, Foreign 34 (1937)
Trade and Fan Magazines	68

[*NOTE.—A rupee is worth* 1/6. *A lakh is* 100,000 *rupees* (*approx.* £7,500). *A crore of rupees is* 10,000,000 *rupees* (*approx.* £750,000).]

S.H.C.

THE FIRST YEAR

The Report of the Cinematographs Film Council

by GEORGE H. ELVIN

The Cinematograph Films Council is comprised of 21 members, two of whom represent persons employed by makers of British films. Eight members represent various trade interests and the other eleven are appointed as being independent persons.
The Council was appointed under the Cinematograph Films Act, 1938, and its functions are to keep under review the progress of the British film industry, to advise the Board of Trade on any matter upon which such advice is sought, and to make an Annual Report to the Board of Trade.
Mr. Elvin, himself a member of the Films Council as one of the employees' representatives, here reviews its first report.

BUT surely you don't agree with that" I have been asked of certain statements in the first report of the Cinematograph Films Council. "No" I have replied. "Then why did you sign it," to which I've countered "Because in my opinion it accurately reports the proceedings, and records the views of that body." This does not mean, of course, that every member of the Films Council agrees with every statement in it. Although probably the large majority do. There are things I disagree with, as those who read the report carefully will conclude.

For example, the summary of views of the employees on the question of increased quota over and above the statutory increases is at variance with the reported conclusions of the Council. I put forward the former. The latter are the Council's conclusions, based, as all views must be based when there are conflicting opinions, on the conclusions of the majority. Similarly, on the question of apprenticeship on the technical side of film production I submitted a memorandum from the Association of Cine-Technicians with which I naturally was in entire agreement. Any supporters of that memorandum must deprecate the decision to "refrain from pronouncing premature judgment" because "existing conditions in the industry did not justify an attempt to devise an apprenticeship scheme for immediate application."

Some good work has been done although I know that members will regret that on fundamental issues, such as quota rates, the rejection of the employees' proposals has meant an absence of decisions which could have acted as a stimulus to production. What has been done? Firstly, there have been fifteen meetings within nine months. In other words the Council has taken its duties seriously. Secondly, all applications for registration for exhibitors' quota of films more than four years old were rejected. Thirdly, although a not inconsiderable number of films costing less than £7,500 labour costs have been submitted to the Films Council for renters' quota on the grounds of special entertainment value, the recommendation to the Board of Trade has been that none of them shall receive quota. I regard this decision as confirmation, if considered necessary, that the supporters of the minimum cost clause were one hundred per cent. right. We have always contended that a creditable full-length film cannot be made for less than about a pound a foot. The decisions of the Films Council appears to confirm that, although note should be taken of the paragraph in the Report which draws attention to the difficulty of interpreting the Council's terms of reference.

Other matters discussed during the year without a final conclusion being reached are the question of short films, and particularly whether they should be subject to a minimum cost clause; and the question of the renters' opposition to co-operative booking by groups of exhibitors, upon which the Council was equally divided. Lastly, the Council made recommendations to the Board of Trade from time to time upon specific quota defaults by exhibitors and renters.

It is the conclusions of the Council's First Report which have attracted most publicity, and which have been the subject of considerable comment. The first important point is that the Council has appointed a committee on statistics to try and make good the grave lack of detailed information about the industry. It will not be an easy task, but if successful a great service will have been rendered.

Attention is drawn to the present position of the industry, the smallness of production and the consequent acute unemployment. Criticism is rightly directed at the financial vicissitudes of 1937 when the methods of production outran the dictates of financial prudence, and the comment is made that no new legislation, as the Films Act did, has ever commenced operation at a less favourable moment.

It is at the concluding paragraphs that most criticism will be levelled. Attention is drawn to the undoubted successes made in this country during the past year, and the report continutes: "We are satisfied that the direct profits which the makers will derive from these films are only the beginning of the advantages which the British film industry can expect to gain from them. We think it appropriate to declare at this point that we see, in the successful films of the past year, the promise of a film industry which will owe its vitality, not to the stimulus of legislation, but to the intelligence, the imagination and the self-reliance of British producers." What has been overlooked is: (1) the most successful British films of the year have been made by or on behalf of American interests; (2) that it is most unlikely they would have been made but for the present legislation (the cost clause, double and treble quota and the reciprocity clauses which are in the present Act but which were absent from its

forerunner indicate why big films are being made here now by American interests whom critics contend could just as easily and financially satisfactorily made them here during the previous ten years); (3) that merit alone has not got British films into the American market. Equally good films have been made before which tried and failed to break into America. The difference is that now such films are handled by organisations which have been induced by legislation to spend a sufficiently large sum on production in this country as makes it impossible for costs to be recouped in the British market alone; (4) that the Quota Act controls the volume of production. Sufficient films have been made to *exactly* fulfil quota. As quota rises, an increase in production of such films is anticipated. Should it fall an immediate decline is foreseen. In other words, legislation and not market values is the determining factor; (5) the Report completely ignores all reference to the renters' influence on production and the great difficulty in selling most of the films over and above their quota requirements. In other words the Films Council Report shows a strange reluctance to face certain essential facts as far as British film production is concerned.

As far as this section of the report is concerned I think the critics are right. The Films Council collectively thinks otherwise. We must keep pegging away even if, as the Report shows, the proposals submitted by the employees have consistently failed to find favour. We were right in advocating a cost clause and other features of the Act. I am equally sure we are right in our diagnosis of what's wrong with the industry.

Affiliation to the Labour Party

As instructed by the Annual General Meting, the General Council has taken a ballot of members to decide whether application shall be made for affiliation to the Labour Party. Mr. Kenneth Gordon and Mr. A. D. Segaller were appointed to act as scrutineers, and the result of the ballot was declared to the General Council at its meeting on August 29th.

The voting was close: there being one vote more against the proposition than for it. There were 5 spoilt papers.

The Annual General Meeting resolution declared that 60% of the votes recorded had to be in favour of affiliation for such action to be taken. Therefore no further action will be taken.

The General Council regrets that not all members troubled to vote, and urges that when the members' opinion is sought on future occasions they should, whatever the matter at issue and whatever may be their views on it, vote one way or the other in order to ensure that the result of the ballot is fully representative.

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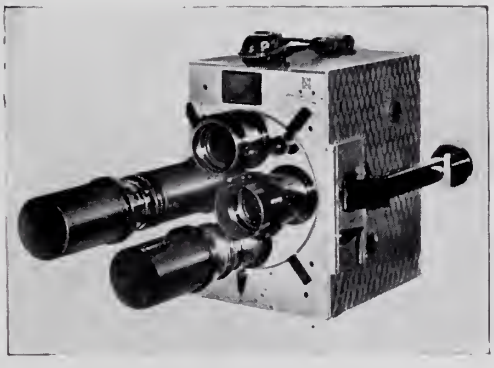

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CINEMA LOG *By* Kenneth Gordon

Today We————?

Things do not look so good for production technicians; with the taking over of Pinewood by Lloyd's, and part of Denham by the Stock Exchange, floor space is again limited. The much heralded re-opening of the Gaumont-British Studio at Shepherds Bush has very little substance. It just means that if wanted G.B. would produce for General Film Distributors, and under this scheme some use is being made of the roof for, I believe, "*Band Waggon.*"

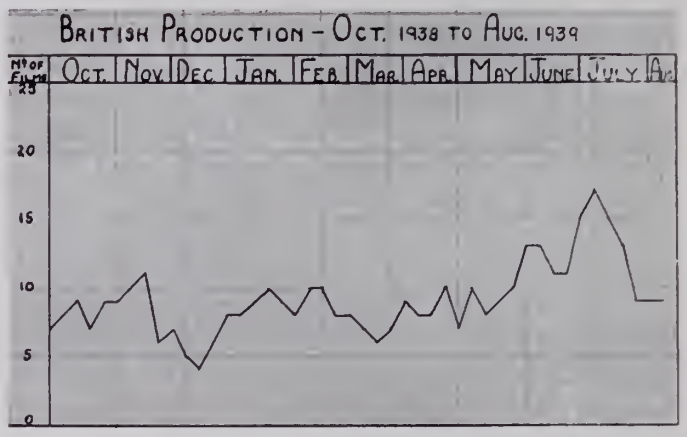
Gaumont-British have kept together the nucleus of the production staff that worked at the Bush in its palmy days, and some floor space is being used by G.B. Instructional. At the moment Elstree is closed and rumour has it that attempts have been made to take over Sound City, Shepperton, for building purposes.

The statements made in the Press that cinema production would stop if war came has not helped. It will be remembered that I made a demand in this column months back for the industry to set up studios in a safe position for the continuation of British production should we have to go to war. Although it has been declared that the Government would engage in the production of propaganda films, and as confirmation of this a number of cine-technicians have been placed on the schedule of reserved occupations, it is essential for the successful showing of any propaganda film that it is sandwiched into a programme of entertainment films, and these should have a strong national character. These could only be made if our studios were kept open.

As for the exhibiting side, it must be remembered that cinemas were kept open during the recent war in Spain, when the same class of bombs were dropped as we should expect here. Madrid and Barcelona are great cities and were in no way protected from raids as we know our towns are, and yet the open cinemas played a great part in keeping up the morale of the population during those nerve-shattering times—and this was in spite of the dearth of good films.

Mr. Sorensen raised the question in the House of Commons when he asked if the Board of Trade had taken or proposed to take action to prevent studios being closed in time of national emergency . . . and whether they would ensure that film production would not be unnecessarily curtailed. Mr. Stanley, President of the Board of Trade, stated that negotiations were proceeding and were approaching completion for the use of certain studios, and that discussions as to the appropriate use of film studios in time of war were taking place and approaching agreement. Mr. Sorensen, representing A.C.T. interests, further asked if many studios were likely to be closed down in time of war, and Mr. Stanley replied: "All these matters have to be considered in regard to the relative value to which the premises might be put." He did not think anyone would expect that in time of war the cinema industry was likely to remain completely unaffected.

As "*The Cinema*" said: "Let's hope emergency will never arise, because apart from its national implications, the British film industry would not easily weather another set-back like it had in the last war."



It was during that war, in fact, that the industry lost its position as a producing country, and it has taken twenty years for it to regain a place in the world markets. The best use for our film studios is to make films—and it is to be hoped the time will come when every stage is busy. The latest news is that the G.B. Studios at the Bush are to be taken over.

Oriental Film Artistes Organise

Following the formation of a union by the Coloured Film Artistes, representing African and West Indian coloured people working in film production, the Oriental Film Artistes also formed a union (for Indian and other Asians) during their work on "*Four Feathers.*" The General Secretary is S. Alley. Declaring that employers had not carried out their assurances to engage Oriental artistes and extras through the Union for "*The Thief of Bagdad,*" and save them 5% commission on their salary, a large demonstration was staged at Denham which received wide publicity. Since then the Oriental Film Artistes have met the Employers' Federation in Wardour Street under the watching eye of an official of the Ministry of Labour and I understand a number of differences have been adjusted.

The Perfect Script

When Samuel Goldwyn finished reading a fresh script from a newly optioned scenarist one morning, he called the anxious writer to him and said, "This is a perfect script. It's the only scenario I ever saw that there's nothing wrong with. I want you to have 100 copies made, and send one to every member of my staff. I want everybody at this studio to see a perfect script." The writer was delirious with pleasure. "And hurry," added Goldwyn, "before I start rewriting it."

Lucky They Have Perforations

News to hand of how a well-known West-end Laboratory is making ends meet these hard times. This lab being outside the Employers' Federation, and thus being limited to processing only a certain class of work, they have taken up the developing of "Leica" negatives for a firm dealing with a large clientele of amateur photographers.

Rudyard Kipling's Only Scenario Job

Rudyard Kipling was never known to be a film enthusiast, although he admired D. W. Griffith's "*Way Down East*" and "*Intolerance.*" The legend of his dislike of the cinema as a medium rests largely on his reference to Hollywood in the lines:—

" There rise her timeless capitals of
Empires daily born,
Whose plinths are laid at midnight and
whose streets are packed at morn;
And here come hired youths and maids that
feign to love or sin
In tones like rusty razor-blades to tunes
like smitten tin."

But in spite of this dislike, one of his last pieces of work was the editing of "*The Light That Failed*" for Paramount. Two previous versions of this story had been filmed and viewed by Kipling. He read through this script several times and made changes in pen and ink, striking out phrases and substituting others, and filling the margins with such comments as:—"Never say 'ocean' when you mean 'sea' " or "Make this 'Englishman' not 'Britisher' " and substituting for a mild insult —"You silly ass"—a sharper one. In all he made over 50 corrections in the final script, all on the side of precision and realism. This script has been bound in leather and is one of the most prized possessions of the studio. Well, at last this story is going into production under direction of William A. Wellman, who made "*Beau Geste*" and will star Ronald Colman as Dick Helder.

Amongst other Kipling works filmed, "*Gunga Din*" was posthumous and "*Kim*" is still in the offing.

The thoughts of a meeting I once had with Rudyard Kipling will always make my face go redder than it normally is. In 1914, just after the declaration of war, I was with a patrol at night, fixed bayonets, 250 rounds of ball ammunition each man carried to keep us warm. We were patrolling the cliffs of the East Coast, when we spotted a dark figure lurking in some bushes—we deployed; two sharp metal rings as a round is slipped into the breach; then challenge "Halt, hands up." We approached the man, and for myself the pressure of my finger on the trigger was very tight. We had been having some very funny experiences on these patrols and our orders were "take no chances." When my half-section and myself had got the business ends of our bayonets nicely tucked into our prisoner's tummy, we demanded what he was doing in this prohibited area; he gave no explanation and on further examination he looked very dark skinned. We marched him back to our section quarters where the Sergeant further examined him to no effect. So we held him prisoner. During the night, as I had captured the prisoner, I had to stay up and guard him; we were very short handed and the patrols had to continue until one hour after dawn. We sat and chatted during the night, but not a word would our prisoner say about being on our patrol route during prohibited hours. In the morning we took our captive back to headquarters and handed him over to the main guard. Later in the day he was marched under escort before the company commander. I gave evidence of arrest and of the failure of my attempts to obtain the name and address of the prisoner or any explanation of his presence on the patrol route.

Later in the day they told me—I had arrested Rudyard Kipling. Was my face red! A large box of "fags" arrived for me later—it made up for a grand leg-pull.

The Good Work Of "Glebelands"

I have just received a letter from a technician who has been very ill, and has been recovering at Glebelands Convalescent & Rest Home. He speaks highly of the comfort and kindness he received there. He states "it's after illness that convalescent treatment means so much, and a fortnight spent down here under the Doctor, Matron and Sister-in-Charge, first-class food, and the private grounds to rest in soon puts you on your feet." Glebelands, with its glorious grounds, is situated at Wokingham, Berks, and was presented to the Cinematograph Benevolent Fund by Sir William F. Jury, who takes a great personal interest in its management. Glebelands has 25 permanent guests and 14 convalescents. 116 convalescents were received during last year and the Medical Officer reports that all showed beneficial results. It cannot be emphasised too strongly that Glebelands is at the service of the Film Industry and applications for admission are dealt with in the promptest possible manner.

All this good work costs much money—some figures from the accounts will prove this: Provisions, £1,327 : 13 : 9; Medical charges, over £235; Domestic costs, £945; Salaries and wages, £647 : 16 : 4; and administration, £472 : 17 : 10. Odds and ends, which include clothes and weekly allowances for residents, £1,198 odd. Which totals £5,034 : 14 : 4 for a year. As the income last year showed a reduction of £932 : 5 : 10 compared with the previous year, if any technician is in luck a small sub would be welcomed by the Chairman, Reginald C. Bromhead, F.C.A., towards the cost of carrying on this good work.

Our President's Latest.

Frank opinion cards from patrons at sneak preview of "*French Without Tears*" are summed up by star card: "Bloody Good. Jim." A.C.T. President Anthony Asquith as a director is 100% box office, and we are indeed proud of him.

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THE WORLD'S FAIR

ITS FILMS

By

Thomas Baird

IN a Fair that is too big there are too many films. The film enthusiast who wants to see how America is using film to address its greatest international audience has a heart-breaking job, for every national and almost every public utility has employed film as an added voice in its chorus of supplication.

In every odd corner you will find a projector reeling away foot after foot of advertising film. Built into exhibits are sub-standard projectors with their endless belts of colour cartoon extolling chewing gum, pickles, coffee, ham and eggs, motor tyres; and the National Biscuit Company has called to their aid no less a figure than Walt Disney's Mickey Mouse. These sub-standard projectors play their endless tricks of day-light projection with the help of mirrors, ground glass screens and concealed but very vocal loudspeakers.

All this, of course, has very little to do with the Cinema. For the advertisers have as little conscience in laying hands on the film maker as they have had in the past when laying hands on the writer and painter. Sponsorship, as it is called, has very little to do with patronage, for here we have the old story of the artist squirming as he is pinned down to do something he obviously does not enjoy very much.

Someone once said that it was bad publicity to shout louder than the facts and here we have untiring shouting and very little fact. From this cacophonous medley most people turn to the quieter and more reasonable exhibits.

Nearly every national pavilion has its cinema to help tell of the people and purposes of the nation. Russia, France, Great Britain, Italy and the United States all use the cinema to bring to a focus their national characteristics, and it is interesting to see the different approaches. Basically all this national material is documentary, but each nation has a rather different sense of what documentary means. In the Russian cinema you will find most of the recent epics of the Russian cinema. Here is the *Life of Maxim Gorki* and *Three Songs of Lenin*. While the Russian pavilion topped its tower with a figure of a worker, much of the interior is devoted to the glorification of individual heroes. And the films follow this pattern. The great revolutionaries are placed on pedestals and a background to their lives is worked out in films well enough known to the English audience. This is the approach which we expected of Russia and it is eked out by some films of scientific research and of constructional work now being done in Russia. This is a sensible enough use of documentary and follows the old Russian line of the dramatic human story set against a social background. Movements and ideas find their line of interpretation in the great figures of each period.

The United States' sense of documentary is somewhat different. It has two main conditioning forces. One is the early British documentary and the other is the

(*Continued on page 88*)

THE GIANT DIORAMA

By

Donald Forrester

THE Kinematograph Industry is not very well represented at the New York World's Fair. In fact after an extensive search I was only able to locate a Kalee No. 11 Head in the British Pavilion and this appeared to be the only exhibit covering the motion picture projection field in the Fair. Of course, most of the buildings are fitted with their own projection theatres, but no attempt has been made to display any of this apparatus to the public. Exhibits of Sound Film Recording apparatus are conspicuous by their absence. Western Electric have a very interesting display covering recording by "hill and dale" method. The exhibit consists of a moveable stage with a garden setting. Groups are selected from the audience who take up set positions on the stage and an interview with their commentator is recorded. The stage is then moved and the scene repeated with dummies taking the same position and the scene is then played back.

Instantaneous recording and broadcast equipment is also demonstrated by R.C.A., but on the whole there was nothing which really appealed to the technical man who expected to find exhibits covering the latest field of research.

One of the most interesting exhibits both to the technician and the public was presented by the Kodak Company. This consisted of a diorama 187 feet long and 22 feet high on which were projected colour transparencies taken on standard kodachrome film. Projection is carried out by means of eleven twin projectors which are concealed in a spacious projection booth under the roof of the great hall in the Kodak building. These project on eleven screens, each 17 feet wide and 22 feet high. Each of the projectors is synchronised with the others by an elaborate electrical interlock operating through a fully automatic control system. Through this system, projection can be operated with infinite flexibility. If desired, pictures can be changed at different speeds; one group of pictures remaining on the screen for ½-minute while others are changed up to four times a second. Fades, dissolves, motion effects can also be presented.

The heart of the projector system control is a specially notched sound-film which not only carries the voice of the commentator and special musical accompaniment, but also regulates the movement of the projector shutters and the shifting of slides—keeping pictures and comment in perfect synchronism.

With this special "index" film control, it is possible to start a cycle of the colour show simply by throwing a switch—and to stop all the projectors simultaneously by the same simple means.

Eastman Kodak Company claim that the precision gears utilised in these projectors are the most accurate ever machined in the United States. Each gear is 45 inches in diameter, and carries 1,440 teeth.

(*Concluded on page 88*)

A. At left is a standard 2 x 2-inch Kodachrome slide, as used in thousands of home projectors. Centre are a Kodachrome transparency, mounted on optical glass, and a die-casting to fit it. At right is the complete assembly—transparency and casting—ready for bolting to the picture drum of one of the projectors.

B. The colour slides are bolted to the "drum" gears—96 slides to each drum.

C. Demonstrates the size of the projectors. Here are shown only the frame and lenses of one projector. Workman is shown installing one of two 2,500 watt lamps.

D. The refraction effect can be observed in this picture. The slide is somewhat high in the gate but the gears on its die casting automatically tilt the optical registering-plate forward, so that the image reaching the lens is precisely centred, neither too high nor too low on the screen.

ITS FILMS (*Continued from page 86*)

Hollywood influence. We saw how these met in *The River* and in *The Plow That Broke The Plains*. In both these films there was a sense of box office which demands a very super technical perfection and a certain superficiality of thinking. This is the Hollywood end of things. The other characteristic of both these films is their concern to make visually beautiful real people without considering if this superficial visual beauty is in itself real. This is based on a misinterpretation of the early British documentaries.

The Plow That Broke The Plains and *The River* are both showing in the United States cinemas, and *The City*, which is the latest American documentary, is to be seen here also. *The City* is an interesting film and a disappointing one. It cost probably three times as much as a British film of the same scope and it has technical brilliance to which few British documentaries can lay claim. But for the greater part its argument does not bear inspection. One cannot help feeling that the film would have gone very much further if some of the time and money spent on attaining a virtuoso brilliance had been spent on research and some of the time and energy which have gone to its slick cutting had been expended on clearer thinking. It is scarcely a step forward in the history of American documentary because it has sacrificed the truth and sincerity of its argument in making a film that was good to look at and superficially entertaining. It marks, I think, a critical point in American documentary development, for it is obvious that the producers of American documentary must choose whether they will pawn one of their beautiful cameras and spend the money on a visit to the Public Library or whether they will continue their brilliant photography without reference to the more profound patterns of life itself.

In this country many of our cameras have been tied together with string because we believed that our arguments were more important than our photography.

Hollywood's contribution to the Fair is a film called *Land Of Liberty*, and the fact that it is made of cut-outs I take to be a gesture of America's educational integrity. Cecil B. de Mille has raked through his epics of the past and removed the baths and the bedrooms. The result is a long pageant of America's historical characters. The Lincolns, the Lees and the Grants, who have given the land its present ideals, if not its present character. This is, of course, a very expert job of work and it is interesting to see again some of the great actors of the past in their historical roles, but there is more of American reality in one sequence of *The City* than there is in this panoramic national anthem.

Great Britain's cinema is just what we expected: compromise. We in Great Britain feel much more certain of our past than of our future and it was only to be expected that in a Fair which would try to lay down the plan of democracy that Great Britain should try to find its place at the foundations. This she has done by telling the story of the long British struggle to achieve democracy and the centrepiece of the exhibit is that foundation-stone—The Magna Carta. The story moves up through the ages and shows George Washington as a second-generation immigrant from Britain carrying the British idea of democracy into a new country. The conceiving of America in liberty is shown to stem back to the tradition of an English gentleman. In the cinema this story is reinforced. The *pièce de resistance* is the Coronation Film and it is interesting to note that the sore-footed thousands who tramp the Fair daily have flocked to the British cinema to see again this greatest show of all time. The programme is normally made up of the Coronation Film,

(*Concluded on page 90*)

THE GIANT DIORAMA (*Concluded from page 86*)

On these "drum" gears are bolted glass-mounted Kodachrome transparencies—96 pictures to a drum. Twenty-two gears are used in the eleven twin projectors, so that the system carries 2,112 colour-film pictures ready for automatic projection.

To link the gear-rings with the automatic indexing system, the projectors employ one of the largest single-step spur gear reductions ever attempted—48 to 1. The 45-inch gears work directly from a 15/16 inch pinion.

Each colour slide carries a series of gear teeth, integrally mounted along its edge. Together, these teeth form a continuous series around the film ring, and serve to operate the optical registering system built into each film gate.

This registering means consists of a small rectangular plate of selected optical glass, which spins as the film ring rotates. As each picture moves into position, this glass swings upright before it. If the picture halts a trifle too high in the gate, the registering-glass remains tilted slightly forward at the top. If the picture stops too low in the gate, the glass tilts back correspondingly, its movement being controlled by the gear teeth on the film. In either case, refraction through the glass shifts the picture-image so that it travels at proper level through the lens, and is correctly positioned on the screen.

This correct level is maintained even if the colour-slide vibrates up and down in stopping, since the registering glass moves in synchronism with it. Such a means of optical registration has heretofore been found only on ultra-speed laboratory cameras, used for taking pictures at 1/100,000 to 1/500,000 second; but in the Kodak Building projectors, it helps provide screen registration of unparelleled accuracy.

The illuminating system of each Eastman projector is centrally housed, with the ring gears and film drums revolving around it. Water cells are used for cooling, and in addition, a blast of air, chilled almost to freezing, is directed on each projector gate. Large-aperture, long focus projection lenses are used, and specially designed shutters are utilised for many screen effects.

For the World's Fair colour show, photographers of the Eastman Kodak Company prepared a special collection of more than 100,000 Kodachrome transparencies. The design of the Kodak projectors makes it possible to change the whole colour show overnight, simply by unbolting one group of slides, and replacing them with another.

Demonstrations in the Kodak Building are continuous from ten o'clock in the morning until ten at night. Each individual show lasts approximately ten minutes. The exhibit is one of the most popular in the whole of the World's Fair.

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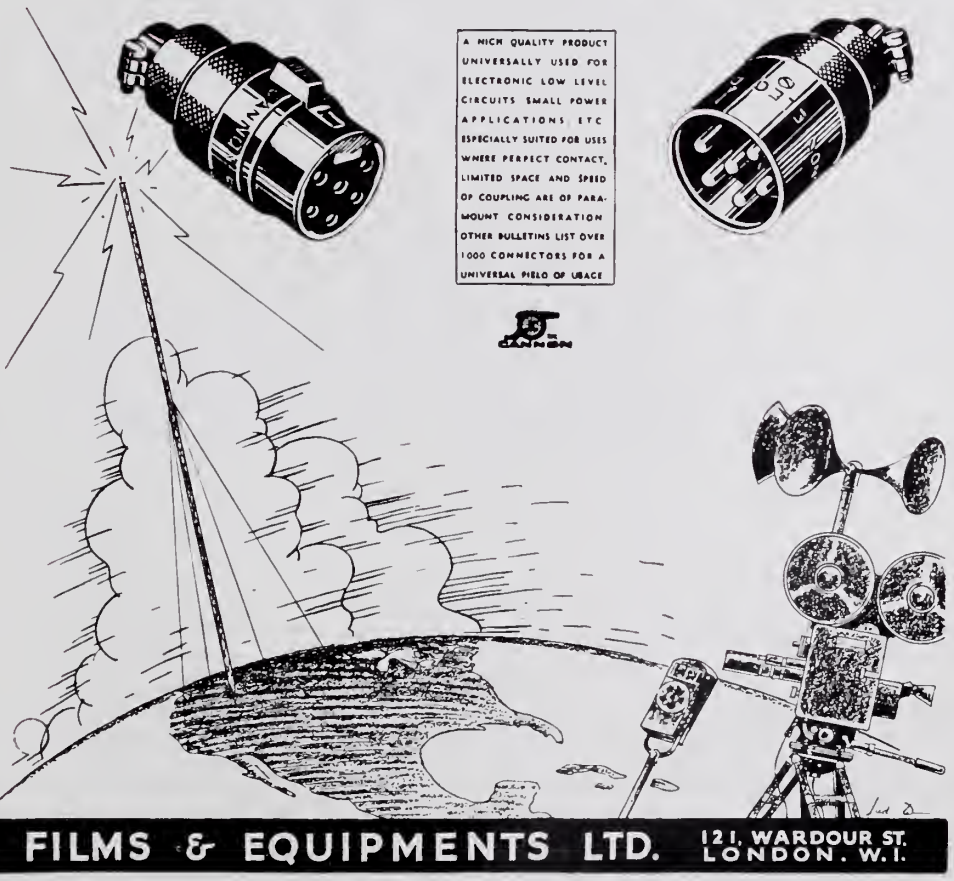
LOOP STANDS, MIXING PANELS, ELECTRICAL TESTING INSTRUMENTS,
CAMERAS, TRIPODS, CAMERA MOTORS AND

CANNON *TYPE* 'P' & 'O' PLUGS

sound
and
ALLIED APPLICATIONS

▼▼▼



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THE NEW PHOTOGRAPHY

By E. A. GRAHAM

DURING the last ten years the science of photography has made great advances, and during the same period the practice has undergone many changes. Part of this can be accounted for, of course, by the steady progress which all technical work makes on the basis of continually accumulating experience. But in the main, in this instance, it seems to be due to the introduction of an entirely new element. If a review of photography is made, it will be seen that the main attention is focussed on a new type of apparatus and a new technique, and that a large section of the people, who previously were uninterested, now devote a considerable amount of time and money to it, and further that most of the progress has been made in connection with these points.

This new apparatus is the miniature camera.

In 1923 the first Leica was put on the market, but it was not until about 1930 that serious attention began to be paid to it in this country, and it began to make headway. The Leica did not remain alone for long, other companies made and marketed similar cameras when it was seen that there was a growing *demand*.

There began extensive research, firstly into optics, The small area of the negative made it possible to use lenses with large apertures unheard of for bigger cameras. The resultant ability to take instantaneous pictures under poor lighting conditions gave rise to the "candid camera" technique, the development of which reacted to cause a demand to arise for even faster lenses. The small negative always required enlarging to obtain a reasonably sized print, and at once the problem of grain size came to the fore; the search began for fast but fine-grained emulsions. The Leica type of camera possessed no focussing screen and in order to eliminate errors in calculating distance a range-finder had to be used. Before long the coupled range-finder was introduced and made a standard fitting. The length of the strip of film created a developing problem which was solved by using an apron and tank, which was later improved into a daylight developing tank in which the whole operation, from unloading the film to the finished negative, could be undertaken in daylight. These are the main lines along which miniature camera photography evolved; the amount of research undertaken and new equipment invented was very great, but it can mostly be classified under these headings.

Why did miniature work cause such a burst of activity? The answer would seem to be that it brought into photography a large number of people who previously had not been catered for, people to whom the miniature camera appealed and who had money enough to make their demands effective. This is seen more clearly if the situation about 1929 is considered. At that time there were two types of camera users: professionals and serious amateurs; and far less serious amateurs, snap-shotters. The apparatus used by the professionals was of a very high quality but with a slight tendency to bulkiness; hand-cameras of $3\frac{1}{2}$ x $2\frac{1}{2}$ ins. size were about the smallest used. The negative material was mainly plates; cut film had been recently placed on the market and was just beginning to make headway. The snap-shotters used roll-film in either box or vest-pocket types of cameras—these owing to their construction and optical equipment were limited in their use to simple subjects under favourable lighting conditions. The choice, therefore, before anyone other than a professional was either to use semi-professional equipment with its inconvenience of size and weight but with ability to tackle any kind of subject, or else a snapshot camera with limited efficiency.

The coming of the miniature camera filled the gap. People who wanted something better than a snapshot camera but lighter than a plate camera could now be satisfied, and by the response, it would seem that quite a large number fell into that category.

What has been the effect of all this on professional photography? Professionals have, in the main, been slow

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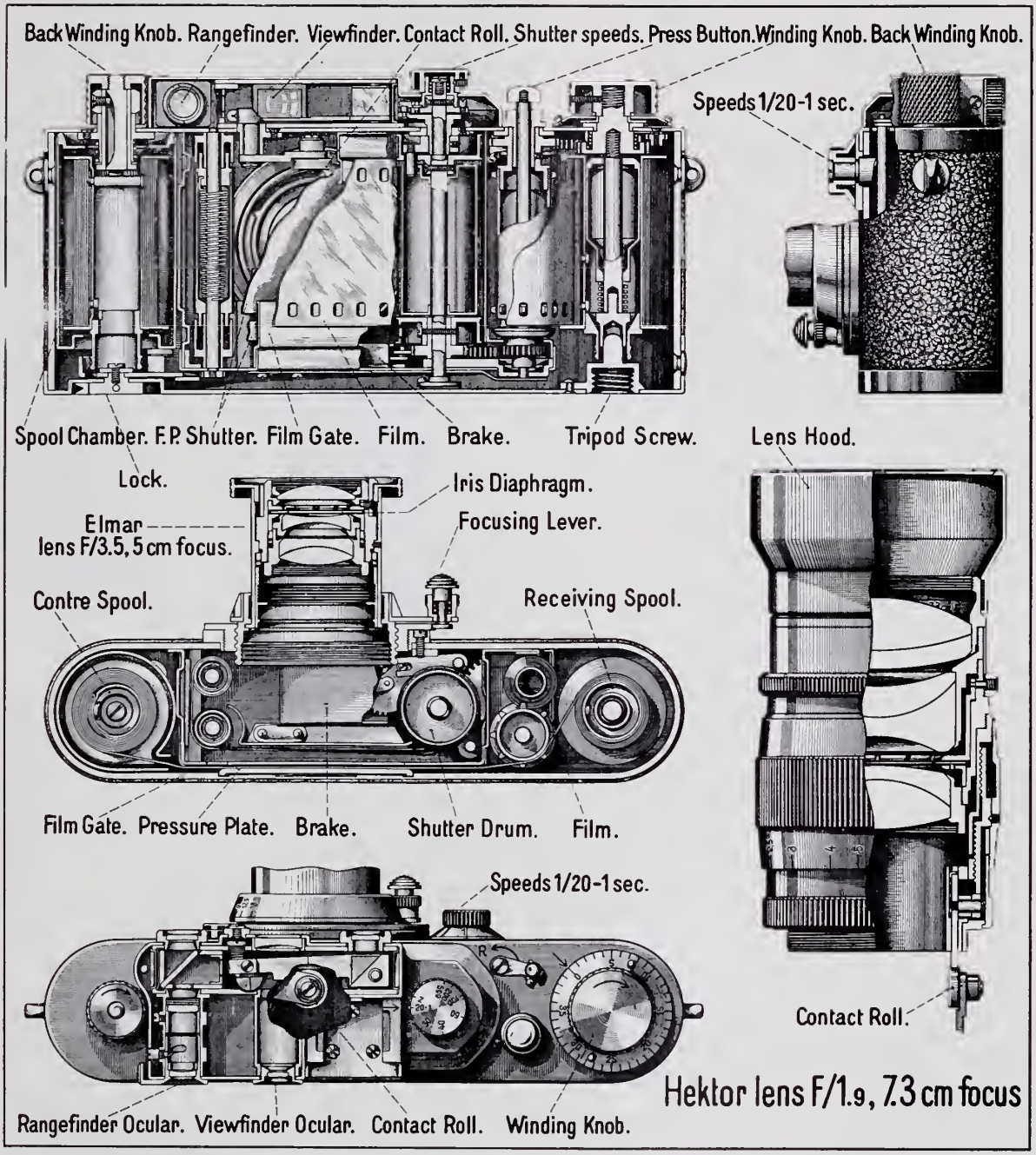
ITS FILMS (*Concluded from page 88*)

a current newsreel and two documentaries. The list of documentary films is already well known. It includes a fair number of G.P.O. films, some revivals from the E.M.B. period, a number of Imperial Airways films, some of the Strand Zoological subjects, a group from Gaumont British Instructional, and an occasional Gas Industry social problem, and some of the films of Scotland group. Each day in the afternoon there is one hour devoted to a programme from one or other of the Dominions. It is an adequate and interesting picture of the stability and efficiency of Great Britain. In American eyes it is interesting and compares favourably with the Hollywood end of the American programmes but seems timid when compared with *The River* and *The Plow That Broke The Plains*.

Probably the best selection of films in the entire Fair is to be seen at the Science and Education building. Here there is the only completely planned and comprehensive series of programmes. Science and education have been interpreted in their wider reference and the Committee of this pavilion have gone to many countries to secure the fullest picture of advancing science. In this there is more of a sense of To-morrow than in any other pavilion. Here things seem to be in some kind of focus.

We have seen that, for the greater part, the cinema at the Fair is a loud and rather commercial voice. In the Science and Educational cinema there is not this commercial interest and it is not tied to national glorification. It is perhaps symbolic that science could be the force to take the dispassionate view. The problems are arranged on the basis of themes. One programme is on medicine, and another on schools. One is on educational theories, and one on communications. There are programmes on the social problems facing many nations. Here is material for the person who wants to sit in the cinema for a reason other than sore feet and it is to this cinema that the special groups, who are attending the Fair with some definite purpose in mind, are finding their film material. Here it is organised on the basis of subject interest. Here are the outspoken films of the problems facing the World of To-morrow.



Mechanism of a Leica Camera [*Courtesy: Leica News and Technique*

to use the miniature, basing their objections chiefly on two points: firstly, that the size of the negative is too small to allow any re-touching; and secondly, that the time necessary to ensure a high percentage of negative capable of being enlarged to fairly large sizes is too great to be commercial. The amateur, they say, is attracted by the comparative cheapness of the 35-mm. film and if out of 36 exposures he can get nine enlargeable negatives he is satisfied. This represents a 75% waste, but even so he still has more good negatives than on a normal roll-film. But professionally such wasteage would mean ruin.

But the professional *has* benefited indirectly. The knowledge gained by research has been applied to photography in general, not merely confined to the miniature section. Further, the increased spread of photography has brought into existence a mass of photographic literature in which new theories and ideas are raised and discussed, and this has stimulated endeavours to create a new technique.

But the main result would seem to be just occurring. The precision and compactness of the miniature is being applied to larger cameras; first to roll-film cameras using sizes up to $3\frac{1}{2}$ x $2\frac{1}{2}$ ins., and now there are appearing reflex cameras of small size yet capable of making a negative large enough to give a contact print. The old hand-cameras were very good and efficient, but if equipment can be made which overcomes the professional criticism of the miniature yet retains its advantages then there will be an all-round gain which can only be to the advantage of photography.

Edited by Frank Sainsbury

CLOSE-UPS

No. 3—DAN BIRT

DAN BIRT has just finished his first film as producer and is feeling pretty cock-a-hoop about it. Into it has gone his ten years' film experience and all his ideas on efficient and intelligent production learned by working with both large and extravagant and small and economical companies. He made it at Nettlefold Studios because that is one of the few studios where he has found a real and friendly team spirit. The workers have had for a good time pretty well continuous employment there and so have got to know each other and work as a team. In fact so pleasant was the working atmosphere (and incidentally the production organisation which ensured that people wanted in the afternoon were not called for 9 o'clock in the morning) that every member of the cast, which included Elizabeth Allan, Enid Stamp-Taylor and Basil Radford, wrote afterwards to say they hoped to work there again some time. Butcher's are distributing the film, the story of a girl who lost her memory, which is provisionally called "*Young Person in Pink*," and was directed by Adrian Brunel.

Dan Birt first met Adrian Brunel about five years ago. Brunel was making a music-hall picture for Butchers-Argyle called "*Variety*," and Dan Birt went to Worton Hall to cut it for him. He was struck with Brunel's intelligent theme—that music-hall turns reflect the life and tempo of the outside world, this theme being worked out over the last three generations. Incidentally, "*Variety*" was a great success, and its producers could never understand why the imitations of it that followed did not do nearly so well. Of course, they lacked the theme and the sincerity of the original. In fact, Dan Birt puts sincerity an easy first among the qualities necessary to make a picture a success, a quality incidentally that can be recognised at once and that cannot be faked.

Shortly after this he went to cut for George Smith and from his methods of production learned how to turn out a well-made and efficient picture for very little money. For three years or so after this he was cutting for George Smith or Butcher's, mostly at Nettlefolds, his last cutting job being on Lucan and McShane's "*Old Mother Riley, M.P.*" Now that he has finished producing his own picture, he is going back to cut Butcher's new film, "*Jail Birds*," but if his own picture is a success—and if what he has learned from George Smith is anything to go by, it certainly should be—he hopes it will lead to something quite novel and very hopeful in the production line.

I first met Dan Birt's name around 1929-30 when he was writing for "*Close Up*" (a grand old highbrow film magazine, no relation of this feature). Actually he had started life (well, working life, anyway) as a medical student in St. Thomas's Hospital, but after two years' work he found that he was unfitted to become a doctor by the unfortunate habit he had of treating patients like human beings. At this time his great interest was lighting, stage-lighting mostly, and he made many unsuccessful efforts to get in that line. Then at a party he met Arthur Elton, who on being questioned revealed that in film studios the lighting is done by the cameraman. From then on regularly every week each of the 16 British film studios received a letter from Dan Birt asking for a job on the camera staff. Finally he happened one day in 1929 to write one of these letters from a friend's shop which was stocked with green ink. The green ink did the trick; and he was shortly installed as camera assistant to Joe Rosenthal, jnr., at the old Walthamstow Studios, then in the hands of Capt. George Bamfield and his Filmcraft Productions. The studios were a relic of the old daylight shooting days and had a huge glass roof which had since been painted dark. They were arranged in a circle, studios, labs, projection room, etc., radiating out from the carpenter's shop.

From there he went to British Instructional at Welwyn on a job in the labs. Anthony Asquith was just finishing "*Cottage On Dartmoor*" and later, when he made "*Tell England*," Dan Birt went into the cutting room to help him cut the sound. There were no 4-ways in those days, simply a distinctive morse-code signal on each foot of picture and track, and as the director rushed ahead, cutting his mute as though for a silent, the poor sound-cutter panted behind doing his best to keep in synch.

He stayed in the cutting room at Welwyn for some time, but finally got the sack, and, falling ill at the same

time, could not find another job, as it was then the post-quota slump of 1931. Through his writing on "*Close Up*" he had got to know its editorial staff, Kenneth Macpherson, Bryher and the rest, and while staying with them at Vevey in Switzerland made his experimental sound short "*Silt.*" In this he tried out many sound effects which have since become part of the film-maker's stock-in-trade—for instance, by putting a certain sound with a certain picture making the audience associate the two, and then evoking the picture by the use of the sound alone. Here, too, he met Elizabeth Bergner who was thinking of doing her film "*Ariane*" in English, and later through his "*Close Up*" friends found himself with Pabst in Berlin.

He came back to England to try and get Pabst's magnificent film "*Kameradschaft*" launched here, and in fact ran an outstandingly successful press show for it. It did fine at the Academy and in mining areas. As a complete contrast his next job was for Butcher's at Stoll's on Redd Davis's first picture, "*Here's George*" with George Clarke. It was this that first taught him to admire the amazingly accurate technique and timing of the music-hall stars. Of the three printed takes of one scene, which ran to 14 takes owing to the inefficiency of a female member of the cast, George Clarke's action only varied at the most by three frames. Later he went to Gaumont and arranged to move over to Gainsborough when Asquith was working on "*The Lucky Number.*" One interesting job he had there was cutting the English versions of Gaumont–Ufa productions. One evening he would get instructions—"Catch the morning plane tomorrow." Next evening he would be sitting with Erich Pommer in a Berlin cinema watching the German version run through before a paying audience (and what a difference a real, paying audience can make to a picture) and the following morning he would begin work cutting on the English version. The difference between Pommer and the English producers was that Pommer knew the technical side from A to Z, and would often come into the cutting room to make cuts with his own hands. Imagine some English producers handling film in the cutting room! For silent shots and inserts, instead of using lavenders for German, English and French versions, they shot the scene three times, the poor English version always getting the worst take. On one picture with a lot of tank stuff nearly all the shots for the English version had nice slices of tank-sides showing.

At a very boring party, at about this time, he found himself sinking nearer and nearer the floor with drink and boredom—when he finally reached the floor he found a girl there waiting for him. After they were married they set up house on a fine sailing barge which he picked up for £150. For five years they lived on it, stopping in the Thames Estuary or round the coast and coming up the river to work, at Walton or wherever it might be (I don't suppose they could get up the canal to Gainsborough). When they reached the bridges, down came the great ochre sails and the auxiliary chugged them through. When their little girl was born nearly two years ago they had to pack it in temporarily, as kiddies are great hands at falling overboard, but as soon as she can be trusted they'll go back to live on their barge again. It's a great life.

Well, Dan Birt has seen productions at Ufa under Pommer and at Worton Hall under George Smith, and his conclusion is that the future of British films lies in the cheap, unambitious, efficient production. Because

(*Concluded at foot of next column*)

"COLONY"

Produced at the Unity Theatre

If this play were running in the West End it would cause a sensation. It gives us the theatre at its best. There is none of your milk-and-water ideas, nor a pandering to the idle rich, but a full-blooded story of conditions as they are in the colonies of our Great Empire.

Some little time ago disclosures were made in the national press about the West Indies: starving peoples; strikes; brutal treatment of native workers, because they dared to stand up for their right to a decent standard of living. To show how urgent was their need of a better social and economic order we point out the following facts.

In 1937 infant mortality rate was 119 per thousand in Jamaica. Out of a population of 1,130,014 a thousand die each year from tuberculosis. Voting is based on property and income. The result is that on most islands only three per cent. are allowed to vote.

Almost the entire wealth of the West Indies belongs to absentee landlords and white plantation owners. In 1937 the West Indies Sugar Company, owned by Tate and Lyle, made a net profit of £1,227,553. The Earl of Harewood, husband of the Princess Royal, owns plantations in Barbados. So does Lady Dunsany.

Strikes have been met by violence. Between 1935 and 1937 at least 46 people were killed, hundreds wounded and thousands prosecuted for participating in strike demonstrations. In 1938 eight people were killed and over 170 wounded—for asking for an increase in wages. A warship was used to crush the strike in Jamaica.

Such material and much besides has been taken and skilfully woven into a moving play which brings vividly to the imagination the whole sordid story. It makes one burn with shame to know that British subjects are so treated by those who profess to call themselves "white" men and "Britishers." It is, however, gratifying to know there are people in this country like Geoffrey Trease, the author of "*Colony*," Herbert Marshall, producer (incidentally a member of A.C.T.), and all those sincere and efficient men and women who act or otherwise give their services freely in order that the general public may learn just how bad conditions are in many parts of this "Glorious" Empire.

Some day these conditions will improve out of all recognition, but not until the present capitalistic system is abolished. It is then that Unity Theatre will be able to look back with even greater pride on such productions as "*Colony.*"

H. CRAIK.

DAN BIRT

(*Concluded from previous column*)

our language sounds something like American, some of us have made the mistake of thinking that we had the same market open to us as the Americans. If we had spoken French we should soon have had to find the same highly successful solution as the French have already done—measure up the market and then produce to it. So Dan Birt sees our future in terms of modest but sincere pictures of our own life, and for himself he hopes to have a large share in the shaping of that future.

LAB TOPICS

Agreement Now Working Smoothly

As might have been expected, several queries have arisen concerning the working of the Laboratory Agreement with the British Film Production Association (formerly the Film Production Employers' Federation). The majority were concerning interpretation, some of which were raised by the A.C.T. and others by the laboratories. Almost all were settled satisfactorily and amicably either by discussion with the laboratory affected or by joint conversations between A.C.T. and the Employers' Federation. We have every reason to expect that the one or two outstanding points will also be settled shortly.

The only laboratory with whom difficulty has arisen is Denham and on two occasions it has been necessary to take advantage of the Conciliation machinery provided for in the Agreement.

The first case concerned the non-payment of overtime to departmental heads. Sir John Forster was the Independent Chairman appointed by the Ministry of Labour. **The Committee unanimously resolved that departmental heads within the scope of the Agreement at Denham Laboratories must receive overtime in accordance with Clause 10 of the Agreement.**

The second case concerned the alleged victimisation of an A.C.T. member at the same laboratory. Sir John Forster again presided and it was agreed that in the event of a vacancy occuring at the laboratory which our member is qualified to fill the company will notify him of such vacancy and, if he is available and makes application, such application will be given prior consideration.

These two cases demonstrate the wisdom of the Agreement's conciliation machinery and show the benefits of such procedure for straightening out any disputes which may arise.

Wrong Reason

A laboratory which closed down a little while ago said, in the letters of dismissal they sent out, that the additional costs imposed on them by the Laboratory Agreement which they had been "obliged" to sign was a cause of the close-down. "Obliged," forsooth! It sounds as though the A.C.T. representatives at the discussions carried pistols with which to force the employers' signatures! The General Council and the Laboratory Committee were quick to point out their resentment of such remarks to the Employers' Federation.

So if anyone starts trying to pull that one on you, tell him he'd better think again. Let's repeat once more that the signing of the Agreement meant, for the first time, stabilisation of wages and conditions in the labs. It meant, further, that wage-increases of anything from 5/- to over £1 a week had been achieved for 57% of the workers covered. 40% have benefited from increased overtime rates, 50% are eligible to benefit from the non-deduction of a sum equivalent to National Health Insurance payments when away ill, and 70% are put in a position to benefit through payment over a longer period when sick.

That doesn't sound as if the Agreement did lab workers any harm, does it? The fact is, that if any labs are in economic difficulty, the cause of that difficulty is not that they may have to pay a little more to their employees (they will get the return of that in improved output due to removal of grievances). No! Any difficulty there is comes from excessive competition, price-cutting, and granting of business-catching extras to steal jobs from the next firm.

On the whole, we think it's true to say that the Labs that signed the Agreement realise this and wouldn't dream of grumbling in this way at an Agreement they voluntarily signed. Their job is to eliminate cut-throat practices in processing prices, and to see that before long there is no laboratory outside the scope of the Lab. Agreement. They can count on the co-operation of A.C.T. in achieving that end.

Don't Do Other People's Jobs

At one laboratory the other day, several A.C.T. members were asked to do work on a Sunday which is normally outside a laboratory worker's routine. And they were asked to do it at a rate which was less than the firm would have had to pay had they engaged outside labour at proper trade union rates.

Our members decided to give the firm a lesson in elementary trade unionism. They declared that outside craftsmen ought to be brought in to do the job at the proper rate of double time for Sunday work; and that in any case they themselves would not do the work in question at the lower rate suggested, that is they refused to blackleg. The firm chose the second alternative and paid proper rates.

Remember this incident if anything of a similar nature comes up. If you're at all uncertain of the right answer, consult Head Office.

The New Factories Act

The London Trades Council has published a useful pamphlet (*The New Factories Act—What it means to the trade unionist*), the reprint of a lecture by H. Samuels, Barrister-at-Law. There is a foreword by Robert Willis, Secretary of the London Trades Council. The Act of 1937 represents the first "big push" in factory legislation since the beginning of the century and as it is unlikely that there will be a less interval before the next big stride forward Mr. Samuels urges trade unionists to settle down and make the best use of the Act they now have. We outlined the provisions of the Act in a recent issue of *The Cine-Technician*. There is no purpose in going over the ground again but Mr. Samuels deals with it at greater length than is possible in a short article and we strongly advise our members to obtain and read this pamphlet. It is good to see that the author has written in easy, readable language so different from the verbiage of the Act.

Many employers are observing the Act loyally. Others are not so conscientious and cases of its non-observance have been reported to the A.C.T. We urge, as Mr. Samuels does, that a vigilant eye must be kept on the numerous obligations now devolving—many for the first time—on employers, and members must remember that whether the Act is kept or not largely depends on them. The District Factory Inspector is only one individual and it is up to us to keep him informed of those firms whose attitude to the Act may give rise to complaints.

A HUNDRED YEARS OF PHOTOGRAPHY

The Science Museum Exhibition Reviewed

"ONE hundred times the swallows to the eaves." This year the centenary of the invention of photography is being celebrated; in 1839 the results of the first practical photographers were published. Many people, who are not connected in any way with photography, have been surprised to learn that it has so long a history; until quite recently the expression that "it is still in its infancy" was frequently met with. The beginning of snap-shotting in the eighties of the last century is the start for most. The invention of photography is another example of the fact that when human progress reaches a stage which makes a certain invention possible and necessary, various individuals, working independently and unbeknown to each other, achieve similar results about the same time. The early history of cinematography is another example of the same thing. The photographers mentioned above were two, Daguerre, a Frenchman, and Fox-Talbot, an Englishman. Daguerre's work was published by the French Government which paid him and his partner, Niepce, life pensions in return for doing so. Their process, known as the Daguerreotype, is not the true ancestor of modern photography. It was not a negative-positive process and only one copy of the subject was obtainable. Their results were mostly useful as data for further experiments. Fox-Talbot on the other hand produced a method which enabled a paper negative to be made and from it copies to any number could be taken, and this is the true commencement of photography as we know it.

As part of the centenary celebrations, the Science Museum at South Kensington and the Royal Photographic Society have arranged a special exhibition at the Museum. It is divided into three sections, firstly examples of apparatus from 1839 until today, secondly a series of photographs showing the development of pictorial photography over the same period, and thirdly a section dealing with modern applications of photography in everyday life.

In the first section there is a collection of the equipment used by Daguerre, Fox-Talbot and other early pioneers, and nothing shows the great changes more clearly than the comparison of this simple wooden apparatus with the complicated and precise cameras of today which occupy the opposite end of the hall. The early cameras consisted merely of a light wooden box, with a lens at one end and a plate-holder at the other for the sensitive material. There were no shutters as the exposure required was so long that all that was needed was a lens-cap which could be removed during the exposure. With this, the apparatus of the pioneers, are exhibited examples of their work, including a fine Daguerreotype panorama of Paris, which was reproduced in the last issue of "*The Cine-Technician.*" Copies of Fox-Talbot's photographs include, in many instances, members of his family and staff, and it seems very strange to see photos of scenes of the early Victorian period, a period which one is apt to think of in terms of Dickensian illustrations or of pictures in old copies of "*Punch.*"

The middle period is illustrated by cameras and portable dark-rooms of the eighteen-fifties. About this time a process known as wet-collodion was invented, and it was necessary to expose the plate while the emulsion was still wet, which meant, in practice, making the emulsion just before using it. The result was that anyone who wanted to take photos away from home took a small laboratory with him, either strapped on his back or on a small hand-cart. Thus equipped away he went with a merry laugh. We should admire the heroes of those days, for some of the apparatus really required about two strong men and a small boy to carry it around; in fact, beside it a Technicolor camera would look almost sissy. But they persevered and eventually a dry-collodion process was brought out and the dark-room could remain at home. From that time cameras have got smaller, returning more and more to the sizes used by the early photographers, until to-day we have cameras which can be carried easily in a coat pocket; a convenient arrangement, by-the-by, as it allows the photographer to undertake various social activities unencumbered.

The photographs which form the pictorial section are drawn from the collections of the Royal Photographic Society and range from portraits by D. O. Hill about 1845 to modern examples, and include such well-known pictures as Rejlander's "Two Ways of Life," Streicher's "Isadora Duncan at the Parthenon," and George Davison's "The Onion Field." It is a pity that some of the old photographs recently published in "*Picture Post*" have not been included.

It is on the pictorial side that least progress seems to have been made. Technique has advanced undoubtedly, and the work of to-day is more perfect and finished, but that of eighty and ninety years ago has a liveliness and vigour that is lacking in many pictures to-day. The people who form the subjects of Hill's portraits have more character than is found in many a modern portrait, though it would be an exaggeration to say, as it has been recently, that he was the greatest portrait photographer of all time. There are several interesting examples of photo-montage, or more correctly composite photographs, which were rather fashionable in the early days; the most notable is the "Two Ways of Life" mentioned above. This was made up of a large number of separate negatives and depicts a young man looking rather like Ben Hur contemplating vice and virtue; it does not say which way he went, but the former looks so attractive one can only hope that he did not let opportunity pass him by. The influence of fashionable art trends is very noticeable about 1880, when several pictures resemble the works of the Pre-Raphaelites in subject matter and composition. Another very prominent tendency is the endeavour that was made for many years after 1890, when the modern carbon printing process was introduced, to make pictures which disguised the fact that they were photographs and which resembled etchings or drawings.

The modern section is mainly concerned with the

(*Concluded on page 98*)

IMPRESSIONS OF THE

by

MAX BRENNER

AFTER having worked as film editor in London for two years, during 1936 and 1937, I went to Paris in consequence of a call I had received from a producer of that city. On the strength of an introduction from the A.C.T. to the "Syndicat General des Travailleurs de l'Industrie du Film" which at that time also embraced the French film technicians, I soon succeeded in being granted the working permit necessary for commencing my activities as "Chef Monteur de Films."

Then as well as today the French capital was the centre of an active and flourishing film production to which many interesting films of great artistic and commercial merits owe their existence. The most important studios and laboratories are those of the Pathé-Cinema Company which are situated at Joinville, an eastern suburb of Paris. Joinville also harbours the extensive studio and laboratory plant founded by Paramount and devoted originally to their European production, where most of the "doublage," i.e., the post-synchronisation of foreign-language dialogue into French, is being done, which kind of work is performed in France in the most excellent and perfect manner. However, it is contemplated to restrict by legal measures the number of such dubbed versions admitted per year, in order to gain a wider scope for the screening of original French-language pictures and, accordingly, give an even stronger impetus to domestic production.

At Epinay, a northern suburb of Paris, are situated the Eclair and Tobis Studios which are also equipped with laboratories of their own. Besides, there are several smaller studios in various parts of Greater Paris, viz., those of rue Francoeur, Place Clichy, Courbevoie, Montsouris, also the old Gaumont Studios at Botzaris, none of which can be compared with the Denham or Pinewood plants but are usually humming with activity and have given birth to many meritorious films.

When I came to France at the end of 1937, the five-day week was a universally recognised and accepted institution. No work was done either on the stages or in the cutting-rooms on Saturdays as well as on Sundays, and whenever working on a Saturday was rendered indispensable by exceptional circumstances, the producer had to carry out negotiations with various official bodies before receiving the necessary permission. The regulations pertaining to the eight hour working-day were also observed most rigorously. As a rule, work commenced at noon and shooting continued until 8 p.m., with a short break at tea-time, around 4 p.m. Naturally, the limitation of the working-time resulted in the most thorough preparation being given to each film, since every minute available in the studio had to be utilised for the actual shooting. Thus productions were hampered probably less than might be surmised from the utterances and opinions expressed by some producers.

Yet from the time when I started working in France until the present period, the social life of that country has undergone many decisive changes which, of course, have not failed to affect the working conditions of the French film industry. Thus, the working-time method formerly prevailing has now been abolished to some extent and replaced generally by the so-called "English" method of half-day work on Saturdays, which development has led practically to the introduction of the 44 hours week.

Editing—to talk about my special profession—is done usually during the shooting-period and finished in most instances a short time after the completion of shooting. In this connection it may be mentioned that, generally speaking, less time is devoted to the production of a picture in France than is the case in this country. Editing is often performed by means of a Moviola, but there is also an apparatus of domestic make, the "Maurice," which is preferred by many French editors who are accustomed to it. One can always rely on finding in all studios and laboratories a number of very skilled and experienced female cutting assistants.

(Continued on page 98)

FRENCH INDUSTRY

by

JOHN GRAY

RECENTLY I was fortunate enough to be able to have a holiday in Paris, and combined the usual Parisian amusements with a busman's holiday and tried to see something of the making of French films. This was made much easier for me through the kindness of A.C.T. who furnished excellent introductions (for the busman's part of the holiday).

It was the large Pathé studios at Joinville of which I saw the most. Without being as modern or as spectacular as either Denham or Pinewood, they are very well laid out and ought to be extremely convenient in which to work. They certainly possess an enviable record for it is here that have been produced such films as "*Mayerling*," "*Pépé le Moko*." "*Quai des Brumes*," "*Hôtel du Nord*" and many others.

While there I saw two films in course of production—"*Tempete sur Paris*," a melodrama, directed by Bernard Deschamps (who made "*The Virtuous Isidore*") and the stars of which are Arletty and Eric von Stroheim.

The set for this film was interesting for two reasons; it consisted principally of a long narrow passage of a covered arcade market, in which perspective construction had been used to a great extent. The whole of the back of the set was raked and tapered, which meant the employment, for certain long shots, of a number of boys made up to represent adult actors. Another interesting point was the extensive use of neon lights which formed a large part of the dressing of the set. These did not appear to give the cameraman much trouble, but were a constant worry to the sound department as a source of hum.

The camera used was one of the latest Debries, I believe actually the very latest. They have thirteen Super Parvos at Joinville and these cameras appear to be far the most popular in France though many Cameréclairs may also be seen. For sound R.C.A. is used, and at Joinville at least, they use booths containing both mixer and sound cameras, which follow the production to which they are attached from floor to floor. One point that I especially noticed was the almost universal use of the inductor microphone, in preference to the ribbon more normally used in British studios, and the manner in which instead of using a boom or a stand the microphone is frequently just carried by one of the sound department in his hand. The use of the ribbon microphone, I learned on enquiry, is practically confined to music sessions.

The other production which I was fortunate enough to see on the floor was Sacha Guitry's new comedy "*Les Neuf Célibataires*." Beside the joy of watching such an actor at work, the chief interest on this set was to see the speed at which all were able to get through their work. Every technician had a script and the day's shooting had been planned in detail before starting, thus everyone knew exactly what next to do the moment each shot was finished.

The Maurice "Moritone"

The working hours in the studio are from mid-day till eight, and these cannot be exceeded except on twenty-four hours notice, when shooting can continue till nine! It is the custom, however, to have the mid-day meal before starting work, so there is no meal break, although there are always opportunities of obtaining something from the canteen. This shortening and tightening of the working hours has actually led to decrease in the number of days required for the shooting of an average production owing to the far better scripting that has resulted.

Before leaving Joinville I must mention their wonderful property department. This is a large building packed with genuine and first-class imitation furniture and furnishings of every period and country. So complete is it that the property master claims that he could furnish a set for any period at a few minutes notice. Pathé value it at many thousands of pounds and claim it to be unique in Europe.

From the more general point of view, I was disappointed by the poor quality of projection in even the best central cinemas. The sound is definitely bad in many of these, and the number of badly scratched prints with a multitude of marks for the changeover of each reel is surprisingly high.

(Concluded on page 98)

MAX BRENNER (*Continued from page 96*)

The wages of French editors average much below those of their English colleagues, not to mention the American ones, though the cheaper living conditions prevailing in France must be taken into consideration. At the beginning of 1938 the Syndicate named above decided to fix the minimum wages for chief editors at 2,000 francs per week (equal to £11 6s. 0d. at the present rate of exchange of 176.75 francs to the £), but this could never be enforced, so that 1,500 to 1,700 francs are considered a good remuneration at present. In spite of all efforts of the organisations concerned, the system of employing an editor at a lump sum for a specific film is still frequently adopted. In such cases an amount of about 15,000 to 18,000 francs is deemed to be a proper salary. Thereby the editor often gets stung, because the production turns out to require a few more weeks than was provided for by the schedule which the clever producer had outlined to the editor when contracting for his services.

Since the middle of 1938 film editors, as well as camera-men, art directors, sound recordists and other specialists, are no more organised in the aforementioned general Syndicate of film and kinema workers, but in a group of their own, the "Syndicat des Technicians de la Production Cinématographique." The latter, being composed of wage-earners, belongs to the central organisation of the Trade Unions, the "Confédération Générale du Travail" (C.G.T.), while, on the other hand, it is affiliated to the "Fédération du Spectacle," a body representing all members of the film industry, the legitimate stage, concert halls, etc. In some ways the tendencies adopted by the new Syndicate differ greatly from those pursued by its predecessor. It would take us too far to deal extensively with those rather complicated matters, particularly since they are connected closely with French party politics, but I should like to mention that the new Syndicate of Technicians is much more opposed to the collaboration of foreigners in French film production than the former general organisation used to be.

Being not wholly impartial and disinterested I also want to refrain from expressing my personal opinion as to what extent the present active development of French film production and the world-wide reputation gained by it are based on the favourable combination of French and foreign elements, i.e., the co-operation of selected foreigners. There can be no doubt that France possesses quite a number of film creators of the first rank, such as Jean Renoir, René Clair, Duvivier, Bénoit-Lévy, Feyder, Germaine Dulac, Marcel l'Herbier, Sacha Guitry, Pagnol, to mention only the most famous. In addition, she has a veritable galaxy of literary, histrionic and technical talents. On the other hand, there is also a considerable collaboration on the part of foreigners, many of whom, among them a large number of Russians, have been linked with the French film industry for many years and have already acquired French nationality by naturalisation. It is an interesting fact often commented upon in Paris that most of the make-up men are former Russian actors). But quite a few film workers from other countries have also made themselves a name in France in the course of the last few years.

Foreigners are apt to find it somewhat difficult to work in French films, at least at the beginning, because the spoken word is always used in them as a principal means of expression. Hence, much more than in English

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JOHN GRAY (*Concluded from page 97*)

On the other hand, cinema-going is distinctly cheap, the top price for a west-end cinema is in the neighbourhood of half a crown, and there are plenty of cinemas in the inner suburbs where you can see three full-length films, news and a cartoon for 4½d. This makes the double feature question look rather small in comparison! Another point which rather surprised me was the slowness of the news reel service. It is quite common for the news reels to contain happenings of a fortnight previously; and a big popular sporting event, "le nuit de Longehamp," at which I was present and where I saw many news reel units, had not reached the screen three nights later.

In conclusion I wish, though I suppose vainly, that British film producers would take a hint from their French colleagues; it seems strange that although for the past year there have been an average of over twenty films on the floor and twenty in the cutting room at any given time in France, and that there are now seven cinemas showing French films regularly in London, British Produeers still cannot see the use of co-operation to set their house in order.

I must thank all the technicians who were so good to me during my stay, and especially M. Egrot and Lamarre of Pathé. Let us hope that soon, we too, may organise and have as prosperous an industry as they.

HUNDRED YEARS (*Concluded from page 95*)

scientific and industrial application of photography, though there is a diagrammatic representation of the principles of photography and space devoted to colour process. Under the scientific heading there are X-ray photos and apparatus, among the former a full-length print of the human figure, astronomical and spectroscopical examples. The apparatus for the photograpic recording of documents is displayed and there is also a comprehensive exhibit dealing with aerial photography; cinematography is, surprisingly enough, not represented.

It is difficult to say, from this exhibition, what part photography has played in the past hundred years, but it is obviously from the modern section that, quite apart from any contributions it may make to art, it has now become an important part of modern civilisation. On more general considerations its role as social recorder is tremendous; historians of the future writing of to-day or of the later half of the last century will not only be able to see what prominent people really looked like, but they will have preserved for them many actual happenings and cross-sections of the social scene. How photography will develop in the immediate future seems fairly clear, simple colour processes and stereoscopy are next on the list, but after that—what? Only the next hundred years can show.

ARTHUR GRAHAM.

MAX BRENNER (*Concluded from previous column*)

or American pictures, the dialogue plays an important part in French films. This, however, gives them a specific flavour of their own, endows them with particular characteristics which render them different from other kinematographic works. Those distinguishing qualities are strong and forcible enough to affect the foreigner working in French film produetion to such an extent as to enable him to adapt himself to French ways after a relatively short time.

Air Raid Protection

Provisions of the Civil Defence Act

The object of this Act which has recently become law, is to enable further steps to be taken to secure the protection of persons and property, the care of the injured and the preservation of essential services from interruption in the event of hostile attack by aircraft or otherwise.

The Act is a very comprehensive one. It deals with powers of Local Authorities to construct shelters, to occupy land and premises, commandeer vehicles, mask lights, etc., etc.

Vulnerable Areas And Factories

Parts 3 and 5 are the industrial sections of the Act and place compulsory powers upon employers to provide protection for their workers. The Act gives the Minister power to specify any part of the country as a vulnerable area. It also gives him power to specify individual factories, etc., outside of these areas in the same way. Any factory, etc. so designated comes within the Act. The occupier of any factory, or the owner of any commercial building, employing *more than 50 persons*, which is situated in an area designated by the Minister, must provide shelter accommodation against air raids in accordance with a code issued by the Minister. Neglect to comply with an order of this description is punishable by fine, not exceeding £100 and a further fine of £50 for each day on which the default continues. Schools, colleges, universities, hospitals, hotels, restaurants, clubs and places of public entertainment are not brought inside the scope of the Act.

If in any building used either as a factory or a commercial building there are a number of small firms none of whom employs 50 people, the total employed in the building is taken for the purposes of the Act and if this exceeds 50, protection has to be provided by the landlord of the building, and it is regarded as a "commercial building," even if there are small factories included. Where a Factory Inspector reports that the occupier of a factory or the owner of a commercial building cannot reasonably provide proper shelter accommodation for the employees the Local Authority may do so upon terms agreed to with the employer or owner.

In the case of a factory or commercial premises where there are outdoor workers, 25 per cent. of the total number of outdoor workers is to be added to the total number of the employees in the building.

Penalties, Inspection and Government Allowances

Where any offence punishable by the Act is proved to have been committed by a corporate body with the consent or connivance of any director, manager or other officer, the officer in question shall be deemed to be guilty of the same offence and will be liable for the same punishment.

The inspectorate under the Act is divided into three sections. For factories it is the Factory Inspector for the area; for mines—the Mine Inspector; and in the case of commercial buildings it is the Local Authority.

Any capital expenditure which an employer enters into as a result of providing protection ranks for a grant equivalent to the standard rate of income tax on the sum expended (i.e. 5s. 6d. in the £ or 27½ per cent).

Expenditure that cannot be regarded as capital expenditure, e.g. the purchase of sandbags, protective

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Ivor Montagu on Soviet Films

The film group of the Left Book Club recently heard Ivor Montagu speak on Soviet films. In 1918, he said, the revolution had left the industry with nothing except a few old studios, a few newsreel men and a few directors like Ermoliev and Protosanov. There was a great shortage of material, particularly stock. Tissé, then a newsreel cameraman, had precisely 750 feet with which to shoot the great Red Square demonstration of 1918. Tissé thinks that the shortage of stock had a great deal to do with the path the Soviet film took. For several years, having no material to work with, the directors spent all their time theorising together and deciding what they would do as soon as they had the opportunity. Kuleshov was the presiding genius and in 1924 the Soviet cinema produced the first of its long line of silent masterpieces, Eisenstein's *Potemkin*. These films were successful wherever they were allowed to be shown, their method being a presentation of mass feeling with a direct attack on the subconscious of the audience by rhythm, symbolism, etc. For five years these films conquered the world —Eisenstein's *Potemkin*, *October*, and *General Line*, Pudovkin's *Mother*, *End of St. Petersburg*, and *Storm Over Asia*, Kosintsev and Trauberg's *New Babylon*, Ilya Trauberg's *Blue Express*, Dovshenko's *Arsenal* and *Earth*, and on a more personal line, Room's *Bed and Sofa* and *Ghost that Never Returns*.

Then in 1929 came sound. At first it seemed that the old traditions would continue unimpaired. Ekk's *Road to Life*, Vertov's *Enthusiasm*, and Kosintsev and Trauberg's *Alone* were all interesting in their treatment of sound and had the same mass appeal as the old silents. But after them was a complete blank, relieved only by a few dull and pedestrian talkies, till 1934. This blank was caused by the Five Year Plan. The Five Year Plan aimed at making Russia completely independent economically of the outside world. The whole of her life was given a new direction and all efforts were directed towards a higher standard of living. Debrie cameras and Agfa stock, which had helped in the making of the old masterpieces, were no

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AIR RAID PROTECTION

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clothing, respirators, first aid and decontamination equipment etc. will be allowed for income tax purposes.

Training of Employees

The owner or occupier of *every* factory, mine or commercial building, whether in a specified area or not, employing more than *30 persons* is required to train his employees in the routine to be followed in the event of an air raid and a suitable proportion of employees are to be trained and equipped to give first aid treatment and to deal with the effects of gas and to fight fires. In the event of any accident occurring during the training of an employee from which either death or injury results, compensation will be made under a Treasury Scheme and not under the Workmen's Compensation Acts, Employers' Liability Acts, etc.

SOVIET FILMS (*Concluded from previous page*)

longer available. Factories for stock and equipment were set up in Russia, and for a time their product was scanty and unreliable. All foreign films were practically excluded from Russia and directors could no longer keep abreast with progress in the outside world. The old "artistic" directors, scared of their reputation outside Russia, toyed with productions for years on end, or academically discussed their old masterpieces with their pupils. Moreover they were very little in sympathy with the new orientation of Russian life—the coming of electric light to people who had never had it before, meant nothing to them.

This impasse continued till 1934 when the brothers Vassiliev's *Chapayev* appeared. This film caught the public fancy and swept through the country like wildfire (it has now been seen by more than 50 million people). It was not particularly well made technically, but its chief character was human and well-rounded and its theme exactly expressed the then growing preoccupation with the individuals' position in the Soviet state. *Chapayev* opened up the gates to a flood of good and interesting films, which has continued till to-day and shows no sign of abating. A few of the outstanding films that followed quickly on *Chapayev* will give some idea of the line of advance—Ermler's *Peasants*, Kosintsev and Trauberg's *Maxim* trilogy, Ilya Trauberg's *Son of Mongolia*, Petrov's *Peter the Great* series, Dzigan's *We from Kronstadt*, and, nearer to-day, *Lone White Sail* and Rappaport and Minkin's *Professor Mamlock*. All these films, some good, some a great deal more than good, show the strong and firm direction of the Soviet cinema, which now that the economic struggle is as good as won, can turn to the creative role of the individual in society.

There remains the question of the "old guard" of Soviet directors. Forced to turn from celebrating the revolutionary triumph over oppression, and having little personal interest in the economic struggle for a better standard of living, they drifted into exploiting technique for its own ends, into making the treatment, not the subject treated, all-important. This came to be called "formalism." Out of touch with the life of the people, Eisenstein spent one year on *Bezhin Meadow*, was told to remake it and spent another year doing so, only to have it turned down finally. This brought the whole matter to a head. Eisenstein was savagely attacked for his "formalism," as in a country where cinema is playing an important part in moulding the life and future of its people, side-tracks cannot be allowed. Eisenstein finally admitted himself in error and *Alexander Nevski* represents his attempt to bring himself into line with the way his country is going. Whatever his success, the future line of Soviet films seems pretty well established for some time to come.

JUBILEE OF N.A.T.K.E.

In its fiftieth year the N.A.T.K.E. is able to report record progress. Over 10,000 new members were obtained during the past year. On the cinema side, now fully recognised by the C.E.A., 33 trade union agreements are operating, covering approximately 2,500 cinemas and nearly 50,000 employees. Improvements during the year have been obtained for members at Sound City and Walton-on-Thames. During the past two years the N.A.T.K.E. has secured for workers in the entertainment industry £700,000 in increased wages.

More Trade Unionists

T.U.C. General Council's Annual Report

One of the striking features of the T.U.C. General Council's report to the 71st Trades Union Congress, which opened at Bridlington on September 4th, is that progress in recruitment has been well maintained during the year, and the present strength of the Unions is materially above that recorded at the end of last year.

The report contains information on the General Council's action on subjects relating to civil defence, the Schedule of Reserved Occupations, the National Voluntary Service Scheme, Industrial machinery in War-time, and Military Service (all subjects on which from time to time the *Cine-Technician* has relayed the T.U.C. General Council's information and decisions). One grave result of the deteriorating international situation is the setback that has taken place in the efforts of the International Labour Office to establish the 40-hour week. Progress, however, is noted in the matter of hours of work and rest periods in road transport, and on questions of vocational training, apprenticeship, recruiting, and conditions of labour of migrant workers.

Unions in the film industry will be particularly interested in the series of suggestions that have been made with regard to the procedure in inter-union disputes, in the hope that charges of competition between Unions for membership can be considerably reduced. As the report says "competition for members does exist, and results in incidents which cannot afford satisfaction to either party and do not reflect credit on Trade Unionism." The T.U.C. General Council recommend all unions to come to working agreements with other unions with whom they are in frequent contact. A.C.T. is proud in that in its own orbit it has striven to do this, and the inter-union agreements with the N.A.T.K.E. and the E.T.U. are monuments to that effort. Suggestions are made for tightening up application forms and making entrants state whether they are members of other unions and what their status (lapsed, in dispute, in arrears, etc.) with that other union is.

Considerable space is given to the General Council's action on the unemployment problem, including the legislation and regulations initiated by the Minister of Labour, and the work of the Unemployment Insurance Statutory Committee. There is a summary of the case made in the Council's deputation to the Prime Minister, and Mr. Chamberlain's reply. The Prime Minister indicated his agreement with the General Council's view on one point at least: that no department of Government was able to consider the general problems of unemployment, apart from its immediate responsibilities. Mr. Chamberlain added that he thought the Government probably ought to be provided with a "thinking machine." An interesting remark, in other ways than that in which the Prime Minister intended it! Many trade unionists have felt that the problem of unemployment was being handled, in the person of Mr. Ernest Brown, by a loud voice rather than a large brain.

Industrial diseases have had special attention this year through the Council's joint committee with the British Medical Association. There is also a Scientific Advisory Committee, to which scientists eminent in their particular sphere have been nominated by the British Association, and which includes such names as Sir John Boyd-Orr and Prof. Lancelot Hogben.

RECENT PUBLICATIONS

Cinematography For Amateurs, by J. H. Reyner. 3rd revised edition. Pitman. 10/6.

Some 192 pages are contained in this revised third edition of J. H. Reyner's well-known book. In it the theory and practice of film making as far as it concerns the amateur is very ably explained. The simple theory of lenses, exposure, and lighting are adequately dealt with both by text and pictorial illustration.

Colour and colour systems available for amateur use are very briefly touched upon, Dufaycolour for instance occupying only half a page. Theory of colour and a more precise explanation of the systems in use at the present time, both subtractive and additive, would have been a welcome addition to this section of the book.

Processing of both positive, negative, and reversal stocks are dealt with and a number of formulae for both processes are contained in an appendix.

The elementary rules of editing and directing are discussed, and the theory and practice of projection explained.

Summing up, one may say that this comprehensive book will be invaluable to the majority of amateurs and will not be out of place on the bookshelves of many people in the industry who, although not actually connected with picture making, wish to acquire knowledge of the fundamental principles of the technical side of the art.

W.H.P.M.

How The Other Man Lives, by Walter Greenwood. Labour Book Service.

Walter Greenwood, author of *Love On The Dole*, writes this second book in the new Labour Book Service. He prefaces the volume by expressing the view that the primary requisite of those who wish to change the present face of humanity is to know something about their fellow men and women. Thirty-seven essays follow. As in any symposium the quality varies. On the whole they seem thin and hurriedly written. But the author does at least succeed in getting over some insight into the lives of our fellows. Two deal with the entertainment industry—the super-cinema usherette and the variety artist. I don't think the usherette who likes her job because she can study human nature is a typical example. And the variety artist presumably belongs to his wrong trade union —Equity instead of the V.A.F. But blemishes apart a stranger picking up the book would obtain a fair impression of the above two jobs. Similarly, I felt better acquainted with other people's problems in reading the remaining chapters.

The Labour Book Service issues two books a month. A full-length work, such as this volume, and an outline of lesser length dealing with some important political, social or economic subject. The cost is 2/6 per month; the service is officially sponsored by the National Council of Labour (which includes the Trades Union Congress) and members wanting further particulars may obtain them from Labour Book Service, 39, Earlham Street, W.C.2.

G.H.E.

Foremost Films Of 1938, by Frank Vreeland. Pitman & Sons. 15/–.

It was a good idea to produce this full account of ten best films of 1938 and also brief summaries of nearly 500 others. The ten films nominated as "Best" are:— "*Algiers,*" "*The Citadel,*" "*Wells Fargo,*" "*The Buccaneer,*" "*In Old Chicago,*" "*That Certain Age,*" "*The Young in Heart,*" "*Love Finds Andy Hardy,*" "*You Can't Take It With You*" and "*Snow White.*" The list includes at least one film from each of the major Hollywood companies, which seems a tactful method of selection.

Although "*The Citadel*" is included in the list, Mr. Vreeland obviously regards it primarily as an American film, and we are entitled to grumble at the inclusion of "*Pygmalion*" merely in a list of special films, as though it were something out of the ordinary run, like a film from Finland or Hungary.

S.H.C.

The Leica Manual 1938-1939, by William Morgan and Henry Lester. The Fountain Press. 21/–.

It might be said that a Leica user's photographic library is incomplete without a copy of the Leica Manual. It might even be said that his library *is* complete with this one book. It is a fund of information, anecdotes and illustrations of every form of Leica work. Contributors include such names as John P. Gaty, H. W. Zeiler and J. Vandercock, writing on such subjects as: Aerial as compared to Ground Photography; The Sequence Picture; My News Photo Technique; When to Use a Leica for Photomicrography; Making Leica Positives for Projection; Copying and Close-up Photography; and Leica Photography in the Tropics. There are in all 29 such sections, each in its own way as complete as a whole volume on the same subject.

It can literally be said that for whatever purpose you use your Leica, this book will be of immense assistance in that field and will open up new possibilities in a variety of others.

P. E. ROWAN

Glimpses Of World History, by Jawaharlal Nehru. Lindsay Drummond. 10/6.

Jawaharlal Nehru, leader of the movement for Indian independence and ex-President of the Indian National Congress, wrote the bulk of this book in the form of letters to his daughter while he was in gaol in India between 1930 and 1933. Consequently it has a informal and personal touch which makes it all the more readable. It also represents a considerable feat of memory since it was written without access to reference libraries and chiefly from Nehru's recollection and such notebooks as he had with him. A major point of interest is the space given to Indian and Oriental history generally, a subject of which our ignorance is profound.

S.H.C.

TECHNICAL ABSTRACTS

PROCESS PROJECTION EQUIPMENT (*Research Council of the Academy of Motion Picture Arts and Sciences*).

A complete report is given of specifications as to the design and manufacture of Background Projection equipment which it is hoped will achieve new production economies and further technical progress.

The report was compiled by the Process Projection Equipment Committee of the Research Council under the chairmanship of Farciot Edouart, and was submitted to all companies engaged in designing, manufacturing or supplying parts for Background Projection equipment.

L.U.O.

TRIPLE HEAD BACKGROUND PROJECTORS.—A Farciot Edouart and Byron Haskin. (*S.M.P.E. Journal*).

A. Farciot Edouart of Paramount Studios and Byron Haskin of Warner Bros. Studios, have both developed independently, and almost simultaneously, unknown to each other, a triple head background projector. They and their associates must be congratulated upon their foresight and ingenuity in perfecting this system of process projection.

Similar principles are incorporated in both devices, consisting of three projectors mounted upon one centre base, each operating as a separate unit and superimposing three identical pictures upon a single screen, thus providing much greater illumination on present size process screens, also permitting the use of much larger screens.

A. Edouart Farciot now uses a screen 36ft. wide, compared with a 24ft. wide screen used a year ago and believed then to be nearly the ultimate size possible.

The present restriction in screen size for colour process transparencies will much benefit by the additional illumination, and the use of large screen projection offers many possibilities in Black and White process photography that have long been desired.

L.U.O.

LAB. PROBLEMS FACED IN AUSTRALIA.—Emery Huse. (*American Cinematographer*).

Emery Huse, well known for his excellent articles in various technical publications, has recently returned from a visit to Australia, where he made a study of laboratory conditions. An interesting account is given of many problems and difficulties encountered.

There are five labs. in Sydney which are practically wholly devoted to the processing of release prints, production being irregular and certainly not plentiful. The average release on a good film is only ten to fifteen copies, so the labs. are not kept running continuously and smoothly.

Consequently laboratory plants are not very modern, new plants are not known, and there is a lack of new and up to the minute equipment, complete air-conditioning and all the latest requirements so essential.

However, in spite of these numerous disadvantages, the well-trained and excellent technicians strive to get the best work possible, not always aided by perfect duplicates from abroad.

L.U.O.

FILTERING ARCS FOR MATCHING QUALITY IN MONOCHROME.—Charles B. Lang, Jnr. (*American Cinematographer*).

The writer describes in detail his own particular experiences in the use of combined incandescent and arc lighting.

The development that has been made in arc lighting has been brought about mainly by the requirements of the Technicolor and other colour processes, which call for lighting closely matched in colour to normal daylight.

Some difficulty was found in matching the arc key-lighting in close shots, to conform with the existing standards of emulsion sensitivity and make-up, already keyed to the incandescent standard. Unsuccessful experiments with various filters to rectify this balance were finally rewarded by the use of a Technicolor filter known as "Y-1." Placing from two to four of these gelatines over each arc unit proved successful.

Several examples of the use of filtered arcs are described. In lighting a close-up, the general lighting was incandescent, while a modern high intensity arc, filtered appropriately, maintained the sharp arc quality beam and gave the theatrical spot-light effect desired in this particular shot.

L.U.O.

A SOUND TRACK PROJECTION MICROSCOPE.—Gerald M. Best (*S.M.P.E. Journal*).

Practically all precision sound track measurements are made with a microscope, which has been the accepted standard in the industry. This method is necessarily slow, and in an effort to speed up track position, printer alignment, and other technical measurements, a projection microscope has been developed. Using equipment available at a reasonable cost, a projection microscope which can be used by anyone in the sound and laboratory departments has been developed and is herein described.

One of the most important advantages of the instrument is its ability to detect printing machine defects, and by its use the quality of sound printing has been greatly improved.

L.U.O.

FINE-GRAIN DEVELOPMENT (*The Pharmaceutical Journal*).

A new idea in fine-grain development is exemplified by the new Kodak product "D.K.20." It includes a silver halide solvent and gives a grain of less than half that of D.76 with only a slight loss of effective speed. The ingredient "Kodalk" in the formula below is a Kodak proprietary alkali, and the potassium thiocyanate acts as the silver halide solvent. The formula is:—

Metol	175 grains
Sodium Sulphite, Anhydrous ...	8 ozs.
"Kodalk"	76 grains
Potassium Thiocyanate	35 ,,
Potassium Bromide	18 ,,
Water	to 80 flu. ozs.

N.B.—Potassium thiocyanate is an alternative term for potassium sulphocyanate.

T.S. L-H.

REPORT OF THE PROGRESS COMMITTEE FOR 1938 (*Society of Motion Picture Engineers*).

This report covers the period June, 1938 to April, 1939. The most notable advance is in the new type panchromatic films, particularly the fine-grain Background Negative which permits considerable improvement in process scenes, and is also suitable for all types of exterior photography.

The new camera designed and built by the 20th Century Fox Studios is outstanding and eagerly awaited. Mitchell have also improved their N.C. Model.

Due to extensive research, advances in the design of exposure meters are expected.

Mole-Richardson have a new series of baby spots, also a silent Arc Broad for colour work.

Several two-colour systems report expanded business, and Cinecolor have a new plant. Technicolor have now a much greater speed set of negatives, showing an increase of from two to four times on their standard negative. Dunning also announce a three-colour bi-pack process.

A new non-slip printer developed on principles recognised by R.C.A. in 1936 has been perfected by Bell & Howell. It incorporates many novel features and operates in a horizontal position.

The triple-head background projector is described in another section of these abstracts.

Developments in sound recording effected by push-pull modulators, improved noise reduction methods, pre- and post-equalisation, track squeezing, volume compressors and limiters have made considerable improvements in quality and overall volume range. The use of squeeze track in release prints has grown during the period.

L.U.O.

E.R.P.I. SOUND INVESTIGATOR (*American Cinematographer*).

Electrical Research Products Inc., have recently produced an instrument, the Vocoder, that analyses speech and then proceeds to remake it in practically any form desired. The Vocoder was developed primarily for telephonic use and also plays an important part in the Voder instrument which manufactures artificial speech. The usefulness of the Vocoder lies in its ability to vary, singly and together, each of the elements of speech. Thus, for instance, it is possible to make one voice into a trio. Although its potential use in the serious side of entertainment is great, the effects that could be achieved with it in the more bizarre productions like " Snow White " are almost beyond imagination.

T.S. L-H.

A NEW PHOTO-ELECTRIC METER (*American Cinematographer*).

The new Model 715, the Weston Master, is claimed to have extensive sensitivity for measurements in low light; increased range, permitting measurements from 1/10th candle per square foot to 1600 candles per square foot; automatic change from " High Light " to " Low Light " scales; a more selective and sharply directional viewing angle; and an increased number of exposure values. The "Low Light" scale has wide divisions and bold numbers which make for easy, accurate reading, and the "High Light" scale has a viewing angle of only 30° which cuts out most of the unwanted extraneous light.

T.S. L-H.

SILENT WIND-MACHINE.—F. G. Albin (*S.M.P.E Journal*).

The machines generally used on motion picture production sets to create wind for pictorial effects are large motor driven propeller fans mounted on floor stands. The noise-level at high velocities is so high that satisfactory sound recording of the scene is practically impossible. Their size and shape require that the machines be placed at such distance that the directivity is not readily controllable. The additional hazard to sound recording of causing wind around the microphone always exists, and commonly the desirable microphone placement is sacrifixed in order to avoid this.

A new wind-machine that has been adopted and tested for use for several years gives great improvement. It is a centrifugal blower, such as is commonly used in ventilating systems. Air is conducted by canvas ducts to the set. These ducts are equipped with variously shaped fittings and nozzles so that the air stream may be directed as desired. It has been found expedient to locate the blower outside the stage building and enter the duct through a special portal. Thereby the greatest noise source, the blower, is mostly insulated from the scene by the walls of the stage building. (It incidentally serves as a ventilator). Measurements of noise-level for various wind velocities indicate improvements up to 70 decibels in noise reduction. Thus sound recordings of scenes requiring wind are made possible where heretofore it was necessary to photograph the scene without sound and provide synchronized sound subsequently.

L.U.O.

ANALYSIS AND MEASUREMENT OF DISTORTION IN VARIABLE DENSITY RECORDING.—J. G. Frayne and R. R. Scoville (*S.M.P.E. Journal*).

Several types of non-linear distortion in variable density recording are discussed and methods of measurement outlined. The two-frequency inter-modulation method is described. Mathematical and experimental relationships between per cent modulation and per cent harmonic distortion are established.

The intermodulation method is applied to film processing for the determination of optimal negative and positive densities and overall gamma. Variance of these parameters from those indicated by classical sensitometry are traced to halation in the emulsion and to processing irregularities.

The use of special anti-halation emulsions appears to reduce residual distortion effects and tends to bridge the gap between intermodulation and sensitometric control values.

L.U.O.

TECHNICAL VOLUNTEER WANTED

THE Technical Committee of A.C.T. would be glad to hear from any technician with a knowledge of foreign languages who is willing to give a little time to the preparation of Technical Abstracts from foreign technical journals. The languages required are German, French, Russian, Czech, and Hungarian.

Volunteers should communicate with Mr. T. S. Lyndon-Haynes, c/o A.C.T., 9, Bromefield, Stanmore, Middlesex.

BELIEVE IT OR DON'T — PIGSWILL.

THE OXFORD GROUP HAVING BEEN BUSY IN HOLLYWOOD, MORAL RE-ARMAMENT HAS ENTERED THE FILM INDUSTRY, & THE MOVEMENT'S FOUR SYMBOLS OF ABSOLUTE HONESTY, UNSELFISHNESS, PURITY & LOVE ARE NOW IN FULL SWING:

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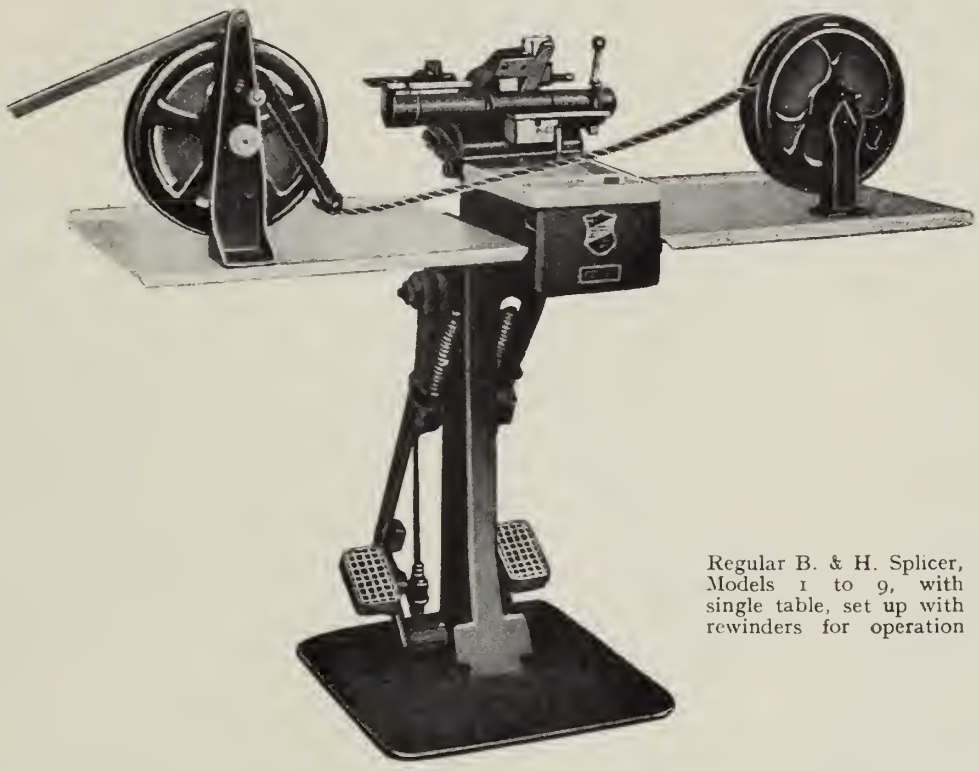

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BELL & HOWELL Standard Film Splicing Machines splice film quickly and permanently without adversely affecting its flexibility or encroaching upon the picture space. They eliminate definitely appreciable wastes of time and money by very substantially reducing overhead costs and minimising film mutilation, thus insuring accuracy and efficiency in the processing and exhibition of motion picture film. They are indispensable units for the modern laboratory and film exchange.

More than twenty years ago the Bell & Howell Company introduced these splicing machines. Since then, B. & H. Splicers have established themselves as the world's standard and as such are being used today by the largest producers and exchanges, as well as by a great majority of the up-to-date motion picture laboratories, throughout the world.

Operation is conducted at an efficiency increase of from 100 per cent upward over that of any known film splicing practice, with a corresponding degree of improvement in quality of output. Their celerity of operation and nicety of results in making perfect and permanent splices in the film are important factors.

Efficiency, safety, uniformly superior quality, greatly increased output, and cleanliness are distinguishing points of merit of these Splicers. Their interchangeability for negative or positive splicing, to give any desired width of splice, and their special attachments for variable frame line splicing and for splicing of unperforated raw film stock firmly establish their versatility and applicability for film splicing of every nature.

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Remarkable and complete as was their original design, B. & H. Splicers have been improved recently as the result of further research and experience, with the result that present models are capable of handling all classes of modern work with a maximum of efficiency and dispatch. The illustration shows how the regular (single table) model appears in use.

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